THE VETERINARY JOURNAL

AND

Annals of Comparative Pathology.

JULY, 1891.

INFECTIOUS PNEUMONIA OF THE HORSE.*

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I AM about to draw attention to a form of Pneumonia which has not yet, so far as I can ascertain, found a place in English veterinary literature, but which has now for some years much engaged the attention of our Continental colleagues—especially those in Germany and France. Why it has not received notice in this country, I do not know, for of its existence among our horses there cannot, I think, be a doubt. I remember, many years ago, that the stables of a certain horse-dealer in Manchester were scarcely ever free from sickness, which was generally in the form of Pneumonia; it appeared to prevail all the year round, and caused heavy losses. In large agglomerations of horses, I have since observed lung affections to be the most serious and the most prevalent maladies, and to my knowledge certain barracks—and even particular stables in these—have been notorious for the number of cases of Pneumonia, of a low typhoid type, constantly occurring in them. But rarely has infection been suspected, and the cause has generally been ascribed to insanitary conditions of the stables or their surroundings.

In nearly all the domesticated species of animals an infectious Pneumonia has been recognised; for instance, in bovines we have the very destructive Pleuro-pneumonia; pigs are decimated by the so-called Pneumo-enteritis; an infectious Pleuro-pneumonia or Pneumonia has prevailed among goats in North and South

* Read at the meeting of the Midland Veterinary Association, on May 22nd, at Worcester.

Africa and in India, as has been from time to time reported in the pages of THE VETERINARY JOURNAL; in the dog, one of the forms of the so-called Distemper—a most infectious malady—chiefly implicates the lungs; sheep are attacked by a Pneumonia or Pleuro-pneumonia when numbers are stabled together—as they often are on the Continent—which resembles the infectious disease of the ox, and spreads from one to another; Perroncito has described an infectious Broncho-pneumonia in calves and young pigs;* and so with other species, in which Pneumonia is either primary, or a secondary phenomenon in many of the specific febrile diseases.

In recent years, too, wide-spread outbreaks of Pneumonia in man have been described, and the extension and maintenance of these have been abscribed to infection. It has been remarked that, in these invasions, the acute Pneumonia present was marked by a very definite course, the symptoms and the pathological changes indicating these being more uniform and constant than is the case in any of the more common febrile diseases. And it has been insisted upon that this fact seemed in itself to point to the probability that the whole affection is determined by the action or influence of some micro-organism, which has a definite and fixed period of activity. True, it is admitted that the identity of this micro-organism has not yet been demonstrated beyond dispute, although ascertained facts point strongly to two special forms as possibly the specific agents in the production of acute Pneumonia in man.

One of these is known as Friedländer's pneumococcus, and consists of elongated, oval cells, provided with a very distinct capsule. This micro-organism, when isolated, cultivated, and injected into the lungs of certain animals, has—in a large majority of instances—produced acute Pneumonia, the inflamed area containing the same form of coccus in abundance. The second form of micro-organism consists of micrococci which always occur in pairs, and are hence named "diplococci"; these also have been shown to bear a definite relation to the development of Pneumonia in man and certain animals. It is acknowledged, however, that their occurrence is not invariable, and similar forms have even been found in the healthy air-passages; from which fact some observers are inclined to believe that the cocci may be occasional parasites of the normal mucous membrane of the air-passages, which find in the inflammatory changes of Pneumonia the best nidus for their development.

However this may be, as has been remarked, many instances have occurred in which Pneumonia has been epidemic in a

* *Journal Vétérinaire de Lyon*, 1885.

district, and it has been observed that the disease may even recur among the inhabitants many years afterwards, if the dejecta of a previous epidemic be brought to light again, as by the disturbance of soil, foul linen, or old stores. Although many cases occur singly, it sometimes happens that the disease runs through a household almost as freely as an ordinary Catarrh, and it usually follows a very regular course if it remains uncomplicated.*

With regard to the horse, it would almost appear as if this specific Pneumonia were on the increase; and there is reason to believe that it is included as one of the forms of the Protean malady, Influenza, being that which is supposed to be more or less present among horses all the year round. In barracks, it is assuming larger proportions, and particularly in Germany.

In the Veterinary Report of the Bavarian Army for 1888, reference is made to the important share this infectious Pneumonia has in increasing the mortality among the horses every year. Its protean character, the difficulty of diagnosing it, and its variable course, are dwelt upon. It is noted that it usually begins with inflammation of the upper air-passages, accompanied with intense fever, but an epizoöty is sometimes ushered in by some cases of Pneumonia, which are likely to be considered as sporadic. The disease is most serious among young horses, and slight colds among them greatly favours the spread of the infection. The extension and gravity of the malady are all the greater, it is remarked, if, when it first breaks out, the horses have been exposed to severe work which has strained lungs and heart. But it is observed that horses which recover have acquired an immunity that may last for a long time. It is stated that the period of incubation varies between six and fifteen days; and in order to suppress an outbreak, it is recognised as extremely important that the first cases should be diagnosed immediately, in order that they be isolated and properly treated, and if the work of the yet healthy horses be heavy, to ease it.†

In the Prussian army in 1889, there were 3,165 cases of Chest-plague *(brustseuche)* admitted, and the mortality was 3·7 per cent., the disease having increased from year to year during the last seven years, notwithstanding the strictest hygienic measures being enforced.‡ And it would seem to be somewhat the same in France.

Although for years considered one of the forms of Influenza, or confounded with ordinary Pneumonia, its existence has been at times suspected, and it is probable that d'Arboval had witnessed it in the first quarter of this century.§ In France it was long dis-

* Fowler's *Dictionary of Practical Medicine.* Art. Pneumonia.
† *Wochenschrift für Thierheilkunde und Viehzucht.*
‡ *Monatshefte für Thierheilkunde,* Band ii., Heft 2.
§ *Dictionnaire de Méd. Vétérinaire.* Bruxelles, 1827. Page 608.

tinguished from ordinary Pneumonia by such qualifications as *bilious*, *ataxic*, or *adynamic Fever*, and was also recognised as *hospital* or *stable Pneumonia* (*Pneumonie d'hôpital* or *d'écurie*); while in Germany it was commonly known as the *Chest Epizoöty*. In both countries its study has been going on independently, though at first only extensive outbreaks were recorded. One of the earliest of these was reported in Belgium by Leconturier, who witnessed an epizoöty which continued from October, 1839, to the end of February, 1840.* Soon afterwards, Lafosse, of the Toulouse Veterinary School, in making some remarks on Pneumonia, wrote: "I might also here allude to the specific Pneumonia, ... but I have never seen this affection."† In 1841 there was an epizoöty of Pneumonia among the horses of the French 8th Hussars, which in a short time killed thirty-one of them; this event was discussed at a meeting of the Paris Central Veterinary Society in 1847, but no opinions were expressed as to the infectious character of the disease.

Professor Siedamgrotzky, of the Dresden Veterinary School, according to Trasbot,‡ to whose investigations I acknowledge myself largely indebted for information with regard to this subject, was the first to give special notice to infectious Pneumonia, in a paper published in 1882,§ though under this designation he included this so-called "Stable-pneumonia" with that caused by foreign matters, Broncho-pneumonia, the Pneumonia often complicating Influenza, the Pleuro-Pneumonia of young horses, etc., in fact, all the inflammations of the lungs other than ordinary Pneumonia. In the following year, Professor Dieckerhoff, of the Berlin Veterinary School, studying at the same time Typhoid Fever and infectious Pneumonia among horses, remarked that a certain number which had recovered from the first succumbed to the other, and reciprocally; while others which were convalescent from the Pneumonia died afterwards of the Fever. From this circumstance, he was inclined to group these affections of the lungs under the vague denomination of "Chest-plague" (*brustseuche*). Professor Lustig, of the Hanover Veterinary School, about the same time recognised two forms of pectoral Influenza—one peculiar to Typhoid Fever, and the other the Chest-plague. In 1884, Cagnat, of Saint-Denis, France, also distinguished a contagious Pneumonia from Typhoid Fever in the horse;‖ and in 1886, M. Brun reported to the Société de

* *Journal Vét. et Agric. de Belgique*, 1845, page 648.
† *Journal des Vétérinaires du Midi*, 1847. page 215.
‡ *Nouveau Dictionnaire Pratique, etc., Veterinaires*, 1890. At. Poumon.
§ "Ueber Infectiose Pneumonien," bei Pferden, *Deutsche Med. Wochenschrift.*
‖ *Archives Vétérinaires*, 1884.

Médecine Vétérinaire Pratique, that for three months he had been dealing with Pneumonia of an infectious character, and different from that of Typhoid Fever. In the discussion that ensued,* the opinion prevailed that there was an enzoötic form of Pneumonia, distinct from the pulmonary localisation of so-called Typhoid Fever. Delamotte, in the same year, made a good clinical study of the malady, and two years later Joly drew attention to a series of cases he had met with, as did also Benjamin and Mesnard; while Leclainche† pointed out that in Germany and Italy, no less than in France, an infectious Pneumonia had been recognised in horses.

But from 1880, Trasbot,‡ in his clinical lectures, had described infectious Pneumonia in the horse as a different morbid entity from ordinary Pneumonia (*Pneumonie franche*), and from the pulmonary localisation of Typhoid Fever.

In Italy, Lanzillotti-Buonsanti and Perroncito§ described it in 1889; but in Germany, Friedberger and Fröhner‖ had, in their text-book on veterinary medicine, published in 1886, mentioned the discovery of a microbe in this form of Pneumonia; and Schütz,¶ in 1887, announced the results of his investigations and experiments with regard to it, agreeing with Dieckerhoff as to the specific and infectious nature of the malady; while in 1889, Hell** announced his having succeeded in cultivating the microbe already mentioned, and having practised preventive or protective inoculations with it.

So that it will be seen that increasing attention has been devoted to this form of Pneumonia in the horse, and there is a strong consensus of opinion among our Continental colleagues not only as to its virulence, but as to its greater prevalence than in former years, particularly in Army stables.

I have already alluded to its ravages among the horses of the Bavarian and German Armies in 1888 and 1889, and to its increase among them during the previous seven years, notwithstanding the most careful and energetic measures. In the report of the German Army for that year,†† it is remarked that the supposition as to a miasmatic development of the disease, or, rather, the existence of a stable miasma, has been proved by experience. The origin and spread of the

* *Repertoire de Police Sanitaire*, 1886.
† *Recueil de Méd. Vétérinaire*, 1888.
‡ *Nouveau Dictionnaire de Méd., etc., Vétérinaire*, Tome xviii. Art. Poumon.
§ *Pneumonite de Cavallo.*
‖ *Lehrbuch der Speciellen Pathologie und Therapie der Hausthiere.*
¶ *Archiv. für Wiss. und Pratik. Thierheilkunde*, 1887, page 26.
** *Zeitschrift für Veterinarkunde*, 1889, Heft i.
†† *Monatshefte für Thierheilkunde*, Band ii., Heft 2.

affection are exclusively due to contact—directly or indirectly—of sick with healthy horses, and its infectious nature is now considered beyond argument. The fact that it prevails in stables where the rules of hygiene are scrupulously attended to, while it is seldom and very exceptionally seen in some which are badly kept, is adduced as proof. Of fifty-four fresh outbreaks in the German Army stables in 1889, thirty-six could be ascribed to infection previously existing in stables; and the chief and inexhaustible source of the contagion in military stables, is asserted to be its presence in the stables of civilians in large towns. The disease radiates from the larger to the surrounding smaller garrison towns; and it is added that its eradication from among military horses is not to be expected, so long as no corresponding repressive measures are adopted with regard to civilians' horses.

When it manifests itself in a stable, predisposition does not seem to count for much in its extension, as it appears to attack young and old, and vigorous and debilitated animals indifferently; and it arises and maintains itself without any appreciable external cause; though from its appearing most frequently amongst large agglomerations of horses kept in stables, and by the cohabitation of sick with healthy animals in these, the infectiousness of this stable Pneumonia had long been suspected. For it manifests itself, as already said, among horses which are most carefully tended, so far as hygiene is concerned, which have not been exposed to any of the causes of ordinary Pneumonia, and which have only been allowed, from some cause or other, to remain during a certain time in their stables. Though it shows itself in the most spacious, well-ventilated stables, yet it is most severe when it is introduced into those which are badly aerated and cleaned. Trasbot has seen it frequently developed among horses, some of which were suffering from extensive suppurating wounds, though he does not look upon this positively as cause and effect, but thinks the relationship may be something more than a mere coincidence; and the designation of "Hospital Fever" sometimes given to it supports somewhat this view.

When it appears among a lot of horses it kills a certain number, and cases occur at short intervals, the disease assuming an enzoötic character—Cagnat, in France, having seen it attack twelve of fifteen horses in a few days. The introduction of a sick horse among healthy ones is generally followed by an outbreak more or less serious, the intervals of time between the occurrence of new cases being dependent on circumstances; but it has been noted that sometimes eight, ten, or fourteen days will elapse from the appearance of the first case until the manifestation of others, and these are generally among the horses nearest to this initial case, though not always so. In some stables the malady is much more

infective or spreading than in others; and in some, again, it is more readily checked than in others. It subsides more rapidly when, by the removal of the sick horses from their midst, the others have more space allowed; it also, of course, disappears more quickly from a stable when a large number are infected at the same time; and the cases towards the termination of the outbreak are not of such a serious character as those at its commencement. In regiments in which the malady often rages, subsidence is slow, especially if they are in barracks, and the stables in them are not well ventilated; in others which are seldom visited by it, or which are in good barracks, or standing in the open air, it disappears quickly.

The infectious nature of the disease is, clinically, not a matter for doubt; but the same can scarcely be said for it from an experimental or bacteriological point of view. Schütz has succeeded to some extent in demonstrating that the disease is inoculable; for with fluid obtained from the lungs of horses which had died of it—this fluid containing pneumococci and the microbes of pus—he inoculated mice, which succumbed in two or three days; with the blood of these he has inoculated other mice, which quickly died, and in their blood he has found the bacteria of infectious Pneumonia. Having made twelve successive inoculations of this kind, from the blood of the last he inoculated peptone jelly, with the result that after some days' cultivation there was a white flocculent mass formed, consisting of the bacilli. With a Pravaz syringe he injected four cubic centimetres of this cultivation into the lung, through the thoracic wall, of a two-year-old horse, his object being to obtain necrotic centres, and the development of gangrenous Pneumonia. The horse died on the ninth day, and on examination there were found purulent Pleurisy and gangrenous patches in the lung, around the inoculation points. Bacteria were discovered in the lungs, bronchi and trachea, and in the larynx they were so abundant that it looked as if there were a pure cultivation of them there; they were also found in the bronchial glands, spleen, liver, etc.

This demonstrated, so far, that infectious Pneumonia could be produced by inoculation, and a second experiment on a six-months-old foal, on which experiments had already been made, with regard to Strangles, gave similar, though less precise results; but a third on a two-year-old colt yielded exactly the same results as with the first. From his experiments, Schütz concluded that:—

1. The pathogenic agent in infectious Pneumonia of the horse, is a small oval bacterium found in the lungs and other organs.

2. This organism can be cultivated in flesh-peptone gelatine, and on agar-agar at 35° Cent. temperature.

3. The fluid obtained directly from the diseased lung and inoculated in mice, kills them in twenty-four to forty-eight hours, producing an infectious material which maintains its virulency to at least the twelfth transmission.

4. The culture product is also pathogenic for mice, and to a lesser degree for rabbits, but scarcely at all for the guinea-pig and pigeon, and apparently not at all for the pig and fowl.

5. This cultivation product, injected into the horse's lung, gives rise to infectious Pneumonia.

Hell's experiments with this cultivation were not so demonstrative; for he injected it into the bronchi of thirty horses, but without producing true Pneumonia in any of them. After the injections, however, nearly always immediately there was general disturbance, dulness, diminution of appetite, cough, elevated temperature, and quickened pulsations; but these symptoms subsided in about two days, and all was normal again.

Symptoms.—General disturbance is witnessed before the lungs are discovered to be affected, the intensity of the phenomena varying mainly according to individuals; and it is the presence of these phenomena which differentiate this infectious Pneumonia from ordinary non-infectious Pneumonia, and which assimilates it to every other kind of infectious fever.

Some horses, when attacked, at first only cease to eat, and do not appear very depressed; but others become suddenly prostrate, and in a few hours seem in a state of stupor—hanging the head or resting it on the bottom of the manger, with the eyes partly closed, though they are neither swollen nor tearful. These horses are indifferent to everything going on around them, and will not move unless compelled to do so, when they walk heavily and listlessly, stumbling and staggering as if ataxic. High-couraged, nervous animals are generally those most markedly affected, becoming, in the course of a day or two, semi-comatose. In all, whether there is loss of appetite or not, there is intense fever, the temperature running up to 104° or 105° Fahr., and even higher, with quick, shallow, tremulous respirations—twenty to twenty-five per minute; while the heart-beats are hurried and strong, even violent, but the pulse, on the contrary, is nearly always small and weak. The conjunctivæ are slightly infiltrated, and gradually assume a dull yellow or yellowish-brown tint, rather pale than red; thus justifying, to some extent, the qualification of "bilious" sometimes applied to the malady, and which differs absolutely from the saffron-red hue of ordinary Pneumonia, or the violet or old mahogany tint of what the French term Typhoid Fever. As Trasbot indicates, to the practised clinician there is, in this particular tint of the conjunctivæ, a differential sign which is really pathognomonic.

Notwithstanding the frequent gravity of this condition, for several days there is no characteristic symptom of Pneumonia.

The rusty-coloured nasal discharge does not appear until later, and is indeed sometimes absent in certain cases throughout the course of the malady, only a little greyish mucus being noticed. The most careful and minute examination of the chest by auscultation and percussion does not reveal any absence of, or even diminution in, the respiratory murmur, nor yet the crepitant moist *râle*, nor any tendency to dulness of resonance on percussion. The lung affection is still *latent*, as it were; but this does not imply that no change is going on in the lungs, for it is possible—nay, probable—that these begin to suffer with the onset of fever, but only in their deeper parts; and some horses may die without these pulmonary changes having been appreciated during life. In others, it is not until four, five, or six days have elapsed that the superficial parts of the lungs are involved, when there is perceived a moist crepitant sound; this may, however, be very ephemeral, for soon there is absence of all *râle*, and there is dulness on percussion towards the inferior part of one or both lungs—usually both, as, contrary to what happens in ordinary Pneumonia, which is nearly always unilateral, in this infectious form it is nearly always double. In more than thirty cases noted by Trasbot, he did not find one with localisation in only one lung; this he considers quite remarkable.

As hepatization gradually extends, and has reached or exceeded the lower third of the chest, to the other local symptoms just mentioned is now added tubal respiration, heard on one or both sides; for it is rare that this lesion reaches the same height at the same time on both sides, and rarer still to find it limited exactly horizontally. Frequently the blowing sound reaches to close behind the shoulder, while the percussive dulness extends from this point to half the height of the chest; but behind, at the same level, the respiratory murmur and resonance may be perceived.

As Trasbot remarks, this last symptomatic feature—which is generally foreign to ordinary Pneumonia—is no less interesting and differential than the preceding ones.

Meanwhile, during this increase of the malady, the general symptoms, which were so intense from the commencement, are maintained or aggravated. The appetite is gone or nearly so; a little fluid may be drunk, or even a large quantity when thirst is great; the breathing is more hurried that the condition of the lungs would appear to warrant, the respirations often reaching thirty-five, forty, or forty-five per minute, although the stethoscope only reveals the existence of limited hepatization. The circulation is increased in the same proportion, and the pulse

retains its unsatisfactory character; the thermometer may register 106° or 107° Fahr.

Another characteristic symptom, and which is constantly present in infectious Pneumonia in man, according to Barth, is the presence of albumin in the urine.* Whether it is constantly present in the horse is not yet decided; but it is not found in ordinary Pneumonia; and, should its occurrence be constant, then it will be another valuable diagnostic and characteristic indication of the presence of this particular form of Pneumonia. It disappears with recovery of the patient.

As a rule, this infectious Pneumonia does not run such a rapid course as ordinary Pneumonia occurring in a vigorous and plethoric animal; in some cases, notwithstanding the intensity of the fever, it assumes an almost sub-acute character, especially in old and enfeebled horses. In other instances, however, the animals die early, and before the appearance of the usual indications of pulmonary hepatization; while in others, again, when these are present, they reveal only a slight extent of that condition. In both cases the local lesion is apparently so unimportant on an autopsy, that it does not seem sufficient to account for death, and it is necessary to invoke general infection as largely tending to that unfortunate result. Should the animal live sufficiently long, in many instances the Pneumonia is complicated with Pleurisy—indeed, so frequently does this happen, that Trasbot is inclined to consider every case of Pleuro-pneumonia in the horse as necessarily of an infectious nature. This intercurrent Pleurisy often goes on unperceived, and it is only on *post-mortem* inspection that it is discovered, and found to be of some duration. But in animals which do not succumb rapidly, its existence should be suspected, and a careful examination will detect it. Its commencement is marked by a recrudescence, or greater elevation of the already high temperature, with corresponding feebleness of the pulse, to be soon after followed by the ordinary signs of Pleurisy, more or less marked.

In some few cases Pericarditis complicates the Pneumonia, but this is difficult of detection, as our patients cannot describe their sensations, and it therefore nearly always escapes notice until after death. But its existence might be suspected if, with a very weak pulse, there is violent action of the heart—powerful beating, with corresponding friction sound, and pain on percussion over the region of the heart. Such a complication as this must hurry on the case to a fatal termination.

The liver may be involved, and this will account for the old-mahogany tint of the visible mucous membranes.

* *Dictionnaire Encyclop. des Sciences Médicales*, Second Series, vol. xvi., page 289.

In Germany, abscess of the lung has been frequently observed, but in France it appears to be almost unknown. Generalised congestion of the lungs appears to be extremely rare, and is usually only witnessed in animals which are in robust health when contaminated; this rarity is explained by the comparatively slow evolution of the disease at its commencement.

Gangrene of the lung is far less common in France than in Germany, where, according to Schütz and other German authorities, it is the usual characteristic of infectious Pneumonia.

In Germany, also, the disease has been often complicated with Strangles among troop horses, and other complications among these have been reported as follows :—Intense debility and paralysis of the hind-quarters; epileptiform seizures; acute hydrocephalus; inflammation of tendons and tendinous sheaths; internal inflammation of eye; laminitis, etc.

On examination after death, alterations in the lungs are the most striking feature, and these are mainly due to hepatization. This occupies a certain portion of each lung, and is never limited to the inferior parts, nor above by a nearly straight horizontal line, but ascends more to the middle region, towards the bifurcation of the trachea at the upper third of the lungs, invading all, or nearly all of the two anterior supplementary lobes, and the whole of the supplementary right lobe. The deeper portions of the lungs are most affected—indeed, hepatization may be very advanced in them, and the superficial parts be still permeable to the air—in this respect differing widely from ordinary Pneumonia, and it would go to show that the infective agent, whatever it may be, commences its action deeply in the lungs, is at first local, and extends progressively towards the superfices until it has invaded the entire organ, if the animal lives sufficiently long. The hepatization is more of the grey than the red kind, the tissue being generally of a dark-red colour, and does not contain much blood, nor many, if any, of those hæmorrhagic patches grading from brown-red to black, seen in acute Pneumonia. It is also more compact and tenacious, and pressure will cause a somewhat abundant flow of thick, reddish-grey serum, mixed with blood and pus, from its cut surface. The exudate in the parenchyma is softer and less adherent than in ordinary Pneumonia. Very minute abscesses can be detected on close examination of sections of the supplementary lobules, and around the larger bronchial tubes; and the intervesicular septa are so remarkably thickened as almost to form a special and differential feature, and assimilate this infectious Pneumonia of equines with the infectious Pleuro-pneumonia of bovines—a resemblance still further strengthened by the similar development and symptoms in both diseases.

When sections of the diseased lungs are examined microscopically, great numbers of pus microbes and the lancet-shaped micrococcus, considered as the real agent in producing the disease, are found. The latter are seen not only in the exudate that fills the air vesicles, but in even greater numbers in the intervesicular septa. There they are found singly, as diplococci, and in agglomerated masses. Schütz considers this lancet-shaped bacterium of infectious Pneumonia of the horse as a special microbe, different to that of human Pneumonia. It is also found in the pleuritic exudate, in the always-tumefied bronchial glands, and in the pericardial exudate, when this is present, but very rarely in the blood.

From what has been stated, it will be evident that this "Stable Pneumonia," as it has sometimes been termed, is a much more serious and fatal disease than Pneumonia *a frigore*. And it is admitted that it is all the more grave as the animals are high-bred and nervous, common-bred horses resisting it much better. When judicious treatment is adopted, early recovery is far more likely to follow than when the disease has been present for some days, as the vitality of the patient quickly becomes sapped, and revivification is impossible.

With regard to treatment, recognising the malady as infectious gives the key to its prevention and suppression. An abundance of pure air is the first essential, and this can only be had in stables which are well ventilated, and in which each occupant has ample cubic space. Over-crowding, and hot, close stables must be looked upon, if not the actual causes in promoting the genesis of the malady, as at least the main factors in extending, maintaining, and aggravating it.

When it appears, the sick animals should be isolated in cool, roomy, well-aired boxes, open to the daylight and sunlight; and, to prevent chills, their bodies and legs should be clothed suitably to the weather. Food should be given of the most nourishing and easily-digested kind—scalded oats, oatmeal gruel, hay tea, grass, carrots, milk, etc., and a small quantity of sweet-smelling hay. Milk especially is to be recommended, and the quantity need not be stinted.

With regard to medical treatment—which is, after all, subordinate to the hygienic measures—if an agent could be given with safety in sufficient quantity to destroy the microbes which are supposed to cause the malady, then success in curing it might be assured in a much larger number of cases than can be guaranteed at present.

Quinine is, perhaps, the agent which is most suitable in all cases, and the administration of which is least troublesome. As an antifebrile, and even antiseptic medicine, I have great faith in

it. It should be given in large and frequent doses. Carbolic acid is also an excellent drug, especially when there is any suspicion of abscess or gangrene of the lungs. Trasbot gives the following prescription: Carbolic acid, 11 to 14 drams; alcohol, 7 to 14 ounces; acetate of ammonia, 11 to 14 drams; digitalis, 1 to 3 drams. The whole is to be mixed up in honey, and given in four portions in the course of a day. He has also given with success salicylate of soda 2 ounces, and alcohol 8 ounces, administered in the same way.

When there is intestinal irritation, nothing is safer or better than small and frequent doses of sulphate of soda.

When the debility is great, and especially when the fever abates, vegetable and mineral tonics, and abundance of nutritious food, must be prescribed. Horses that are recovering should not be allowed to mix with healthy ones until convalescence has been completely established, and every sign of lung trouble has gone.

Hell, in Germany, has attempted preventive inoculation, and with some show of success, by injecting into the lungs of thirty remount horses about thirty to forty grammes of pure cultivation of Schütz's coccus Immediately after the injection the horses became dull, the appetite was diminished, there was cough and the pulse was quickened, while the temperature rose to 105° Fah. These symptoms gradually disappeared, and in two days the temperature was normal. Four horses subsequently received a second injection, and this was followed by only a slight reaction. Three of these animals were kept for fourteen days among horses affected with infectious Pneumonia, and did not take the disease.

But little reliance can be placed upon this experiment, and seeing the doubt and difficulty surrounding the subject of preventive inoculation, it must be confessed that isolation, disinfection, and good hygiene are to be preferred in combating the malady.

In conclusion, I may say that I have introduced this important subject with the object of drawing the attention of English practitioners to it, so that we may learn to what extent it prevails in this country, and in what respect it may differ in its clinical characters from those observed on the Continent, and so well described by that able veterinarian, Professor Trasbot, director of the Alfort Veterinary School. Much has yet to be learned concerning it, and I trust we may be able to furnish some of the information which is so necessary to render our knowledge complete, with regard to a scourge that seems to be on the increase, and which may be considered one of the penalties incurred by our over-domestication of the horse.

ACTINOMYCOSIS IN THE BUFFALO.

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On the 10th of April, 1891, at the Amritsar Bysakhi Fair, my attention was drawn to a herd of eleven buffaloes of various ages, but mostly between four and five years, the property of a peasant, named Phula Singh, a resident of the Nabha State. The whole

of the animals were affected with Actinomycosis, and presented some peculiarities which may be interesting.

The history of the outbreak, as related by the owner, was that he had purchased a cow buffalo some months before, with an eruption on the skin, from which pus was being discharged in some quantity, but that she had not shown any serious constitutional symptoms, and he had not, consequently, paid any particular attention to the disease.

Since the purchase of this animal he had noticed a similar eruption breaking out, first on one and then another of his buffaloes, until all had become affected in the same way, so as to render them of little value, and without apparently causing them, in his opinion, to be very sick; although the affection of the skin

seemed to be of a most intractable nature, several empirics having treated the buffaloes unsuccessfully.

On examination the animals all presented the same symptoms, some in a more advanced stage than others, depending on the length of time they had been affected. The skin of the flanks, thighs, and, in some cases, the hocks and shanks, was most generally diseased on both sides of the body, and presented the following appearances:—Skin much wrinkled, where loose, and folding over in regular flaps; from the under surfaces of these, numerous deep sinuses discharged an unhealthy-looking, sticky pus. On the flanks, large and more or less pendulous growths, hard to the touch and presenting a somewhat lobulated appearance, with deep wrinkling of the skin, were seen. Over the surface of these masses, numerous sinuses discharged freely a purulent matter. The skin on the thighs likewise presented similar sinuses, which in some cases were also continued down the shank. The area of skin affected was generally large, and the sinuses appeared to burrow deeply into the tissues. Pus was obtained from these sinuses, and when it was closely examined it presented small calcareous particles, somewhat resembling a mustard-seed, which on microscopic examination were found to contain actinomyces.

I consider it a curious fact that, in the whole of the cases seen, the seat of the disease was more or less identical, *i.e.*, on the thighs and flanks more particularly; and in explanation of the probable cause of this, I may remark that the buffalo is a very sluggish animal, and receives many severe blows on these parts of his body to keep him moving. It may, therefore, be conjectured that the first case must have inoculated the second by licking the abraded flank of that animal, and that the subsequent propagation of the disease was effected by means of the stick of the cowherd or driver, or by actual contact. The enclosed photograph of one of the animals affected, which I took on the spot, may be of some use in illustrating these cases, and which I trust may be of some interest.

ANILINE DYE AS A DEODORISER AND ANTISEPTIC.

BY F. HOBDAY, HANLEY, STAFFORDSHIRE.

SEEING the recent allusions to the advent of aniline into veterinary practice as a deodoriser and antiseptic, I thought perhaps some results of a practical application of aniline might be useful.

Case No. 1 was a cob which was suffering from Purpura Hæmorrhagica. On the seventh day some of the swellings burst, whilst others were scarified; very unhealthy suppurating wounds were produced, the smell from them being very offensive.

These were first dressed with solutions of carbolic acid, after being carefully washed with warm water containing Jeyes' Fluid; but this was not sufficient to produce the desired effect. An aqueous solution of anyl. meth. violet was next tried, and with the utmost satisfaction, the offensive smell being completely destroyed, and the wounds, after dressing for four days, presented a healthy granulating surface, finally healing altogether. In conclusion, I may mention that the cob made a good recovery and is now at work again.

Case No. 2 was a horse suffering from sore withers, caused by the rug having been fastened too tightly round its neck. The wounds were very painful, and the animal was unable to wear a collar. After dressing for three days, the soreness had completely vanished, and the horse went to work as usual.

Case No. 3 was a Belgian horse suffering from chronic "Grease." An aqueous solution of anyl. meth. viol. was used in order to deodorise the parts, and it succeeded admirably.

Case No. 4 was also one of "Grease," the skin of the near hind leg having been completely removed by some kind of irritant dressing which the owner himself had been applying. In this case, also, the smell from it was very offensive. After two dressings of a solution of anyl. meth. violet, the smell was completely removed. After being dressed for four days, healthy granulation appeared, and the wound ultimately healed up. The leg was also very swollen, but this was considerably reduced without the application of any other remedy.

We have also used it in all kinds of wound cases. It answers very well indeed as a colouring agent for lotions, etc., except perhaps where the horse is light coloured, as in that case, unless it is a very dilute solution, it temporarily dyes it. To be used for the above, of course, it must be first made into a solution. For colouring powders, etc., a very small quantity will produce a beautiful purple tint.

NOTES ON ANTI-FEBRINE IN VETERINARY PRACTICE.

BY J. A. NUNN, F.R.C.V.S., D.S.O. PRINCIPAL, VETERINARY SCHOOL, LAHORE.

THE following observations on three cases in which there was high fever, and which were treated with anti-febrine, are taken from the Case-book of the Lahore Veterinary College.

Case No. 1 was one of benign Strangles.

Case No. 2 was one of double Pneumonia. The animal belonged to a native, and was said by him to have been ill for two

days, and had been brought from his home, twenty-five miles off, in the beginning of the hot weather, for treatment. The animal was a small weakly pony, and when admitted was in a very exhausted condition. The symptoms were the usual ones. Treatment consisted of the anti-febrine, with warm fomentation to the chest, and Mag. Sulph. ʒii. in the drinking water.

Case 3 was a very fat Australian gelding, the property of a native. The animal had been attacked with Colic three days before, and was brought in by train about forty miles for treatment. The enclosed three charts show the rise and fall of the temperature, which was taken each time a dose was given. The quantity of the anti-febrine given is shown in the heading between the date and the hour the observation was made, which was just before the medicine was administered. These cases are ones in which a record was kept, but I have constantly used anti-febrine in the febrile diseases of the horse, both in India and South Africa, and always, in my experience, with beneficial results. I have found it best to commence with a full dose of a dram, and then administer smaller quantities at short intervals.

[The action of the anti-febrine is shown very distinctly on the charts, the fall in temperature being somewhat remarkable.—Ed. *V. J.*]

PUNCTURE OF THE ABDOMINAL CAVITY, WITH PROTRUSION OF THE OMENTUM.

BY T. BOWHILL, F.R.C.V.S., DARLINGTON.

The subject of this case was a two-year-old filly, injured in a railway accident at Melrose, near Oakland, California, U.S.A. A splinter of wood from one of the broken horse-boxes pierced the off-side of the filly's chest, about four inches anterior to the line of the diaphragm; passing backwards, it penetrated the abdominal cavity in the hepatic region, midway between the vertebræ and the sternum. When I first saw the filly, about ten hours after the accident, the splinter of wood was withdrawn, and about twelve inches of omentum were hanging from the orifice of the wound, over which a yellow-coloured serosity was trickling.

To return the protruded omentum would have caused Peritonitis, owing to it being partially strangulated; so it was decided to amputate it. The filly was cast on her near side, a probe-pointed bistoury was introduced, and the punctured wound slit open to where it abruptly passed inwards; after cleansing, examination of the parts showed it was impossible to return the omentum after

amputation of the diseased part; on account of the wound being between two ribs, and circular, no means of closure was left. Slight traction was now applied to the protruded omentum, and about two inches more were withdrawn. The orifice of the wound was then thoroughly cleansed, the omentum stitched to the muscular tissue between the ribs with catgut sutures, and the diseased omentum amputated as close to the sutures as possible, and dressed with a powder consisting of equal parts of bismuth sub-iodide and boracic acid. The lips of the external wound were brought together with strong sutures, an opening for drainage being left at the most depending part. The hobbles were now removed, and the filly allowed to get up, when a pledget of antiseptic tow was placed over the wound, and the whole covered with a broad calico bandage in the shape of a surcingle. The filly was placed on laxative diet, with the addition of tonic powders, and the wound dressed daily with a solution of soluble phenyl, and a little of the above-mentioned powder blown in with a powder-blower. No untoward circumstances arose to retard recovery, except an attack of Influenza when the external wound was almost closed, the coughing causing some of the sutures to give way. A firm pledget of tow was applied, and the calico bandage adjusted tight enough not to interfere with respiration, and the wound dressed daily as before. No further complications occurred, and two months from the date of the accident the filly was shipped to Central America.

GENERAL REMARKS ON SKIN DISEASES.

BY R. W. BURKE, F.R.C.V.S., A.V.D., CORRESPONDING MEMBER OF THE ITALIAN VETERINARY ACADEMY, VETERINARY DEPARTMENT, AMBALLA.

(*Continued from vol. xxxii., page* 416.)

Burns and Scalds of the Skin.

The cause of this form of inflammation of the skin is action of local heat on pie-bald and light-grey horses and cattle.

The irritations may be of various kinds:—

(1) Intense heat of the sun and dry hot winds are direct causes, when the affection is termed "sun-burnt." This is merely a higher grade of Solar Erythema.

(2) The non-pigmented parts of the skin are especially predisposed from want of protection against the rays of the sun, etc. Hence it is that the non-pigmented parts of the skin chiefly suffer from the effects of heat.

(3) Certain grasses also have this effect of producing inflammation of the skin, principally in non-pigmented parts.

(4) Sloughing inflammation of the skin results from extreme cold.

Symptoms.—Begins as an Erythema or Eczema, with rapid swelling of the skin. Folds and cracks then appear in the skin, with Necrosis, which is generally superficial, but sometimes also deep-seated. In the first case, the skin assumes the appearance of corrugated leather; in the latter instance, the skin crumples to the subcutis, and becomes like parchment paper, which, from suppuration, sloughs off. After sloughing has taken place, a line of demarcation is seen, and, even when a cure is effected, the skin appears nodulated, and shows a permanent scar.

Treatment.—The treatment in the early stages consists in applications of lead lotion, or of lead and tannic acid ointment, carbolic oil, iodoform, etc. When Necrosis has set in, the dead tissues must be carefully removed by the scissors and knife, and dressed antiseptically.

Pemphigus, or Bullous Dermatitis.

Besides the larger blisters, which are called *bullous dermatitis*, many authors describe, mostly in the horse, a specific blister eruption on the lip and about the nasal fossæ, which is termed *herpes labialis*, or heat-eruption (Haubner). This exanthem is characterised by a rapid development of small blisters of the size of linseed, which are usually grouped together, containing a clear fluid. They dry up and disappear rapidly. This eruption hasa great resemblance to the Herpes Facialis and Genitalis of the human being, and also so far corresponds to it in that it generally appears about some natural opening. The name of this disease has often been misapplied, and it has been called Herpes. Gerlach proposed to term it Herpes Tonsurans.

There is in the human subject a disease called the Rose-belt (*Herpes Zoster*), which much resembles it; but still the two diseases have nothing in common.

For further particulars see article on "Chiber," or Pemphigus in The *Veterinary Journal*, December, 1886.

Alopecia.

Loss of hair and wool results from different skin diseases, and may be diffuse or in patches only. The disease is due to impaired nutrition of the hair, with atrophy of the hair-roots. It cannot be attributed with any degree of certainty to the action of parasites, as up till now such has not been demonstrated.

Etiology.—The causes of Alopecia are imperfectly known. A diffuse shedding of the hairs shows some general defect in the

nutrition of the hair-roots, and is accordingly named Alopecia Symptomatica. The disease very often results from bad feeding (Koller, *Repertorium für Thierheilkunde*, 1842, page 306), and is seen also in animals suffering from blood-diseases (as Petechial Fever, etc.) and in those suckling their young, where it is due to constitutional weakness; also in frequent perspiration (Hertwig, *Magazin*, 1848, page 509); and following certain circulatory disturbances of the skin. It is also hereditary (Koller).

Circumscribed Alopecia is considered by some as due to disturbances in the nervous system of the skin; by others, it is regarded as a parasitic affection.

Symptoms.—In Alopecia Symptomatica, there is diffuse shedding of the hair over the whole body. In the horse, gastric disturbances, together with swelling of the limbs, abdomen, and chest, sometimes take place (Adam's *Wochenschrift*, 1858, page 425; Siedamgrotzky, *Sächs. Jahresber.*, 1871, page 78, and 1879, page 82). In many cases, some weeks after the hair has been shed, new hair appears. In the dog, where the hair has fallen off, the skin becomes pigmented, which may be regarded as a protective for the development of new hair. Siedamgrotzky found on microscopic examination that the pigmented spots were covered with small, granular particles, both on the surface of the skin and in the roots of the hairs. In the sheep, the wool falls off in large patches.

(2.) The Alopecia Areata, which shows at first shedding of the hair in small points, gradually enlarges towards the periphery as the disease advances. It is seen mostly in the dog, and resembles Herpes Tonsurans, except that the nodules found in the latter do not appear in Alopecia. Roll observed a case in the horse where the hairs were shed only in small points, which spread within a year all over the body. Along with atrophy, there was marked pigmentation of the skin. The disease is a troublesome one, and defies treatment.

Treatment.—To promote the growth of hair in this disease, irritating substances have been applied, such as spirits of wine or spirits of camphor; also tincture of cantharides, etc. The internal use of tonics may be also tried.

Mégnin (*Ref. Oesterr. Revue für Thierheilkunde*, 1878, page 68) describes cases where small patches were seen on the croup, back, and flanks, and the hairs were broken off at 1 c.m. from the roots, and still hold on the surface of the skin by peculiar knots which had formed.

Hæmorrhage from the Skin, or Bloody-Perspiration.

The numerous scraps of literature on the subject of "bloody-perspiration" contain a doubtful etiology. Many cases are really

only Symptomatic Hæmorrhages from the skin caused by general disease, such as Petechial Fever, Anthrax, Septicæmia, Scorbutis, etc. Others belong to the class of acute exanthems, and may be attended with hæmorrhage. Besides these, there are innumerable causes which produce hæmorrhage from the skin through the secretion of sweat glands—such cases are falsely termed blood-sweating. A definite case cannot be assigned. The disease is due to a general disturbance of the circulation, as one form of hæmorrhage from the skin noticed in cattle. Also, in well-bred horses, principally Oriental horses, and in Russian and Hungarian horses and others, there is a form of physiological bleeding from the skin, that is of a quite innocent description, which was formerly regarded as a process of Nature. In well-bred animals, from violent exercise, doubtless some of the smaller vessels of the skin, bring of a delicate texture, frequently burst, leading to hæmorrhagic perspiration. In such animals, scratching with the teeth in Prurigo will also often produce hæmorrhage from the skin. But all these forms are of a simple nature.

Symptoms.—In many places, the blood falls in regular drops; in slighter cases, the hæmorrhage appears chiefly on the skin of the neck, shoulders, sternum, and legs. The bleeding is only partial, and soon subsides; but the cause is a general hæmorrhagic diathesis. It is frequently noticed also from the nostrils, intestines, in the milk, etc. Attended with hæmorrhage, there is sometimes noticed marked anæmia, the animal becoming prostrate, and general constitutional disturbance supervenes, with slight fever, etc. In well-bred horses, the bleeding from the skin sometimes takes place in jets.

Treatment.—The treatment of partial hæmorrhage witnessed in well-bred animals is seldom necessary. Cold water may be applied to the bleeding parts. When the bleeding is due to any general or constitutional disturbance, sugar of lead, tannin, etc., should be employed.

Other anomalies of the skin belong to general pathology, such as profuse sweating (Hyperidrosis); excessive secretion of altered sebum (Seborrhœa); hard skin, change of hair, and pigment formation; or they are of a surgical nature, such as warts, skin-horns, etc. Also ulceration of the skin seen in general diseases, as Pyæmia (*Annales de Med. Veter.*, March, 1889), Anthrax, Glanders, etc.

Vegetable Parasitic Skin Diseases.

Only three forms of vegetable parasitic skin diseases are recognised in the lower animals—1st, the Herpes Tonsurans; 2nd, Favus; and 3rd, the Dermatitis Pustulosa Contagiosa, or the so-

called Horse-pox*. Among these three varieties, the first two are the most important ones. It is not known, positively, whether even these are actually caused by fungus or by tissue-change. Zurn has observed in the horse the presence of Herpes and Favus simultaneously. These two diseases may exist together, but the one never at any time runs into the other, but is distinct throughout. Besides the above three skin diseases due to vegetable parasitic action, there are others described in which a fungus has been found. Siedamgrotzky (*Sächs. Jahresber.*, 1872) describes a skin affection which resembles very closely the Herpes Circinatus without owing its origin to the Tricophyton. Leisering (*Ibid.*, 1867) has noted a skin disease in the cock which is attended with loss of feathers, and is communicable from the cock to the hen during coition, and in which greenish-yellow conidia have been found. Leisering (*Ibid.*, 1867) and Engel (*Wochenschrift für Thierheilkunde*, 1881, page 413) describe a parasite found in the stump of the tail which caused depilation of the hairs.

(To be continued).

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* Vide VETERINARY JOURNAL, October, 1886.

Editorial.

THE SWINE PLAGUE.

ATTENTION is being again directed to the very serious damage caused by the scourge known as Swine Fever or Swine Plague, which, instead of decreasing its ravages, is—owing to the absence of effective measures and the supineness of local authorities—steadily on the increase. This is very discreditable, and the excuses offered for abstaining from checking such a devastating disease do not appear to be worthy of an enlightened and economical people. It is now perfectly well known, or should be by this time, upon what the maintenance and extension of the malady depends, and there should, therefore, be no doubt as to the kind of measures which are required for its suppression. The havoc it is creating is something startling, and yet the authorities are content to stand by with folded hands, and see the race of pigs exterminated by a disorder which owes its existence only to its infectious properties, and can be stamped out. The same apathy or lethargy which allowed Foot-and-mouth Disease and Contagious Pleuro-pneumonia to ravage our herds for well nigh half a century is still shown in dealing with such maladies as this Swine Plague, and until great pressure is brought to bear—as it was with regard to the two diseases just mentioned—it may be taken for granted that nothing will be done, even though the whole porcine species in the United Kingdom were threatened with destruction. Our Government has never been able to take the initiative in dealing with the contagious diseases of animals, but has been compelled by extraneous pressure to prescribe measures only after long years of heavy losses, which, had they been timeously introduced, would have saved the country millions of pounds, and great commercial and agrarian harassment.

If the pigs of this country are to be freed from a disease which has prevailed among them for years, and now threatens their extinction, certain measures must be prescribed and rigidly enforced, and surely common sense would suggest that the sooner action is taken—as taken it must be some time or other—so the sooner will the heavy loss and discouragement which the disease is occasioning be avoided.

It is satisfactory to observe that the Royal Agricultural Society of England has taken action in the matter, and that it is the subject of question in the House of Commons. But it will require constant and strong agitation to waken up the responsible authorities to a sense of their duties in this direction, for procrastination and apathy are not easily shaken off.

NOTES ON NEW DRUGS.

BY J. DOWLING ALLMAN, A.P.S., LONDON.

ARISTOL.

THIS new substance—a derivative of iodine and thymol—seems to be attracting considerable attention, and is introduced as a substitute for iodoform. It is claimed for it that it possesses all the antiseptic and healing properties of iodoform, but is devoid of the disagreeable odour of that drug. Several other valuable preparations of iodine have been introduced for the purpose of replacing iodoform—such as iodol, soziodol, and bismuth subiodide, already commented on (see VETERINARY JOURNAL, April, 1891). It must, however, be borne in mind that none of these contain so large a percentage of iodine as iodoform.

In a very exhaustive and elaborate paper read at the Pharmaceutical Meeting of the Philadelphia College of Pharmacy, March 17 (*Amer. Journ. of Pharm.*, April); also (*Phar. Journal and Transactions*, June 13, p. 1,135) Mr. Geo. Beringer, Ph.G., gives the following formula as an economical process for making *Aristol*:—

Thymol	15	grams
Soda	20	„
Iodine	6·35	„
Potassium iodide	8·3	„

Solution of chlorinated soda, a sufficient quantity.

The thymol and soda are dissolved in 250 c.c. of water. The iodine and iodide of potassium are also dissolved in 250 c.c. of water, and the two solutions mixed, resulting in an opalescent solution with a distinct green tint, the slight precipitate first formed being redissolved. Solution of chlorinated soda is now added gradually while stirring, until no further precipitation is produced, and a slight excess is indicated by the odour. About 650 to 700 c.c. will be required. The precipitate—a light red-brown in colour—is collected, washed and dried, by spreading on bibulous paper in a suitable room where it can be protected from the light, at a temperature not exceeding 50° C. The filtrate showed the absence of iodides in any quantity, and a portion acidified and extracted with ether yielded no thymol. The yield by this was about 29 grams, corresponding in colour, melting point and solubilities with the aristol in the market, and closely approximating the theoretical yield, 29·285 grams, calculated from the formula $C_{20}\ H_{24}\ I_2\ O_2\ 2\ H_2O$.

Therapy.—The general specific action of *Aristol* is similar to that of iodoform, iodol, and the sozoiodol compounds; but, in addition, it has the valuable property of forming an absolutely unirritant covering over the surfaces on which it is placed, under which the processes of granulation and cicatrization proceed with extraordinary rapidity. It is used and highly commended for various skin affections, such as Mycosis, Lupus, Psoriasis, and syphilitic ulcers. My attention was first directed to its use in veterinary surgery by Mr. W. Augustus Taylor, F.R.C.V.S., Manchester. From the high opinion he has formed of it, it is likely to take rank amongst the recent new remedies introduced into veterinary therapeutics. Séguier (*Thèse de Paris*, July, 1890) in publishing his clinical studies about aristol, states that he considers the new drug of immense value as a means to produce cicatricial tissue in ulcerations of the skin, especially those due to Lupus, to a tubercular diathesis, to Epithelioma, to specific infection, and also in simple ulcers of the leg. The author also mentions the fact, that of all the preparations of iodine and thymol in the market, aristol is the only one not adulterated with iodide of potassium.

PAROPHYROXIA.

This is a new remedy recently introduced by Messrs. C. J. Hewlett and Son, for the treatment of Colic, Tympanitis, and Constipation in horses, and from the large amount of clinical testimony given in its favour, it is certain to take a very prominent part for the treatment of those maladies, as it is anti-dyspeptic, analagesic, anti-spasmodic, and cathartic in its therapeutic action. It is chiefly indicated in those cases of Colic so frequently met with in aged horses, which are generally described as "grass feeders," and where the food is bolted and not sufficiently masticated, owing to the teeth being faulty, and also where the digestive organs are impaired from a loss of tone in the system, the circulation bad, and the necessary amount of gastric juice is insufficient to digest the food. It is here the *Parophyroxia* has a very marked effect in allaying pain, absorbing the gases, relieving the gastric and intestinal dyspepsia, and finally clearing away the impacted fæcal matter. It has proved of great service in the hands of Captain Russell, F.R.C.V.S., Grantham, and Mr. John Peele, F.R.C.V.S., Durham, in allaying the sudden and spasmodic attacks of Colic and Tympanitis, caused by sudden climatic changes, irregularity in feeding and food of improper quality, and the changes of food from soft to hard. These two eminent veterinarians report favourably of the compound in cases of this kind, and find it most efficient in allaying pain and spasm, and as having a most decided action on the bowels. *Parophyroxia* is also commended for the distressing and frequent attacks of pain and spasm arising from some hereditary idiosyncrasy, producing violent contraction of the muscular coat of the bowels, where the pressure on the nerves produce the most agonising torture, the symptoms being conspicuous by the animal being in a constant state of restlessness, whisking the tail, curling himself up, throwing himself violently down, rolling, turning on the back with the legs in the air, getting up, looking at his flanks, etc. It is here the compound has proved of great value, constituting the most efficient and safest of all therapeutic agents for the treatment of Colic, and goes a long way in warding off rupture of the colon and preventing *Enteritis*—the most fatal of all diseases to horses. Even in the last-mentioned disease there may be some hopes of saving life by its depletive action through the bowels, and in conjunction with a hypodermic injection of morphia and atropine, hot fomentations, and, if necessary, bleeding. The dose of *Parophyroxia* for horses is fixed from 4 to 5 fluid ounces, according to the age, size, and condition of the animal; and it may be repeated if absolutely necessary, but in most cases one dose is sufficient, and in no case must aloes be given with it.

SUSPECTED RABIES.

A NUMBER of deer at Carlow have been destroyed because they were supposed to be suffering from Hydrophobia. It is said that some of them were bitten by a rabid hound, and the symptoms which subsequently developed were attributed to Rabies. It is, however, not certain that this was the case. Our contemporary, the *World*, which will not be accused of any undue attachment to abstract science, has the following apposite remarks with regard to this event:—"The sooner Lord Greville's scheme of extending Pasteur institutes to England and Ireland is adopted the better for suffering humanity. There is a dangerous delay in transporting patients from remote places to Paris, and Lord Doneraile's fate ought to be warning enough. Only the other day a rabid greyhound, after biting some children, attacked the deer in Mr. Bruen's park (Oak Park) near Carlow, biting several of them. The contagion spread rapidly, as the deer bit each other fiercely and frantically, and the herd has had to be destroyed."—*British Medical Journal.*

PROFESSIONAL PROTECTION *VICE* PUBLIC WELFARE.

THE only excuse for the existence of the veterinary profession is that it is of benefit to the public. A public want conceived our being; the appreciation of our usefulness is the nutrition on which we have grown and flourished. Therefore it behoves us to remember that all progress, all advance must be in one line, tend in one direction, aim at one goal—*the public welfare.* All benefits accruing to us as a body, or as individuals, must be secondary. Where the interests of one conflict with the interests of the other, it is ours which must give way. It is right and just that it is so. We are a part of the public, and as part of an army is sacrificed for the good of the whole, so it is right that we be sacrificed, if it is for the general good. If we make laws, they are for us to observe, not for the public to heed. It is a fact, however, that the public will heed them if they are for its benefit. If it turns a deaf ear or refuses to obey, let us look to it that there is not a radical defect in *our* judgment, even though it be an old, old prejudice, that began in the nursery.

We say to the public, You do wrong to buy *patent medicines*, or to employ a *quack*, or any one who *advertises*; and they do all three. The more we emphasize our condemnation, the more they disregard it. We have been hammering on those old saws for a century, the medical profession for ten, and to-day all three are in a more flourishing condition, have a stronger hold on the public, than ever they had. "What are you going to do about it?"

This is what we have done so far. A mandate has gone forth, to wit—that patent medicines *always* do harm, quacks know *absolutely nothing*, and the man who *advertises*, well! he is beneath contempt; and we have rallied to the call, like a parcel of tin soldiers, and gazed, and continue gazing, with arms in our hands, at the enemy grazing and growing fat in the fallow fields we have *abandoned* to his tender mercy, forbidden to fire a shot, or in any way disturb him in his easy possessions. Oh, yes! there is one way! "Kill him with scorn!" says the stickler, so we have been trying to destroy him with scorn for a hundred, and a thousand years, but he don't scorn for a cent. Instead, he just takes that scorn, and cultivates his fields with it; it is the best fertilizer he has, and it is a good one; he don't wish for a better.

In its infancy, veterinary science had no rules and regulations; each individual did his best, according to his lights, and the public appreciated him for *just what he was worth*. The fact cannot be questioned, that it appreciates us to-day *for all we are worth*. But we have grown, grown with a mighty growth; our wants have increased proportionately—in fact, a little disproportionately; individual interests have clashed, and members did not fail to act discourteously toward each other. What was "sauce for the goose was sauce for the gander"; so we rallied around a set of regulations that would benefit all—that is, all of us. The code of ethics was born! it is the natural offspring of professional misconduct. *Our* selfish interests conceived its being, *our* selfish interests are the milk and meat on which it has thriven. It breathes not the spirit of public welfare, and isn't meant to.

But we keep on growing all the same; from an infant we have grown to be a sturdy stripling, which we point to with pride, but the same breath which utters praise, blows forth the clear, but monstrously contradictory note of warning, that overproduction threatens us. We are getting crowded closer and closer to the wall. The code successfully (?) counteracted the first evil, but what, in heaven's name, are we to do with this new one which threatens *us?* —that great, and all-important, US again—still not a thought of the public welfare. "Raise the standard of the college!" says one (haven't they been constantly going up?). "Raise the entrance fees!" says another. "Increase the time of study!" "Oblige the applicant to have a superior primary

education!" "Examine his moral character!" "Insist on a year's pupilage!" etc., etc. And what are they *all* for? To supply the public with more good veterinarians? Well, no! but rather to make less, to *regulate the output*. It will make US a more respectable body, it will give US more power, give US better fees.

Some among us honestly believe that such a process of trimming will make superior veterinarians. Let us see. I believe it is Fleming who remarked that veterinarian surgeons were born, not made; but neither he, nor anyone else, will assert, that they were born in a certain sphere, and the restrictions we propose most emphatically restrict the number of spheres to choose from. Now what are you going to do with the *born* veterinary surgeon who cannot qualify, who comes to the college gate, but is told, "Too late, too late! thou canst not enter in. You ought have applied ten years sooner"? Make a poet of him? *Inflict* the public—the poor uncomplaining public—with a poor poet, and lose it a first-class veterinarian? Just think what a loss it would be to us and to the public (at last we get on ground where our interests do not clash), if certain restrictions had kept some of our noble pioneers, some of those men who, when our profession was in its infancy, put their shoulders to the wheel, and by a life of indefatigable industry and intelligent purpose broke the soil, removed obstacles, and gave our science an impetus it feels to-day; and the material a young man must possess, to-day even, let alone what he will need in ten years, before he will be permitted to *begin to study*, would have turned many of them into other paths. Veterinary science began in the stable, in the blacksmith's shop, on the farm; and our pioneers, many of them, had little or no education, but they had brains and were enthusiasts, and we honour and glory in them; they were made of the proper material, the right stuff. But supposing they were unfortunate enough to have been born ten years ago, and ten years hence they trended their brains, their enthusiasm, and their proper material towards the colleges—why they would look at that enormous Chinese Wall of Protection, overgrown with a century's growth of restrictions in despair—they would turn away with a sad heart, and expend their energies in other directions. Such men as our pioneers are born every day, plead for admission into our ranks, and we, with a ruthless hand, bid them go elsewhere. Do you see whither we are drifting? Where the prow of our little bark is pointing? How our pilots, instead of directing us towards that harbour of safety, *the public wants*, are steering in an opposite direction?

But the wants are all wrong!!!!!

Gentlemen, it is not the *wants* that are wrong, it is the *supply*. Is it wrong to want a drink—I mean a drink of water? No, of course not! And if it is impure, why we will take that, not because we are anxious to fill our system with impurities, but the tissues call for H^2O, and water it must have, though it has to take it in combination with various objectionable compounds. We take it because we cannot get better. The public are just like ourselves; it wants the *best*, the VERY BEST, but it can only get what it can afford. It isn't the public that is wrong in demanding; it is we that are wrong in not properly supplying. In QUACKERY, in PATENT or proprietary medicines, and in ADVERTISING, there is a germ of good, which it is *our* loss (I am now striking selfish interests) *not* to extract. From the quack the graduate evoluted—in fact, it is not even evolution; we are but quacks, or, that it may sound sweeter to the sensitive professional ear—empirics, of an older growth; the patent medicine man is replaced by the wholesale drug houses; the secret remedies supplied directly to the public by the quack, and guaranteeing to cure everything, now pass to the same public through the medium of the profession with the ingredients of the compound on every label, the therapeutics of the ingredients added. The quack extolled the therapeutics of his secret mixture, and to his testimony added that of *re-*

spectable citizens; the drug houses extol their methods of manufacturing, and, to their own testimony, add the endorsements of the *very best physicians*. This patent medicine business is a little bit like our national beverage—whisky. It don't taste very good at first, there is too much of that abominable chemical compound called fusel oil, but time softens it considerably, takes away its rancour, and, used properly, is potent for good.

ADVERTISING! Well, I will say a few more words on that subject. We have already found advertising to be very advantageous, and we recognise, very clearly indeed, *legitimate* and *illegitimate* advertising. Legitimate advertising is confined to the few; illegitimate—well of course none of us indulge in that; but, gentlemen, there is a germ of beauty in advertising also, it is enclosed in a bud of prejudice just now, and only those birds can suck who have long bills. You and I, brother ordinary practitioner, would swallow and destroy the entire plant if allowed to enter the hot-house, but if you have fourteen titles to your name, if you are a professor, or an inventor of some useful or useless invention, the author of a medical work, good or bad, belong to a geological society, or connected with a theological seminary, corresponding member to a Dutch, or French, or English magazine, then, presto! it is all right. If the vulgar reporter, recognising from this vast array honours which you wear so proudly—if this reporter, I say—this reporter of the ignorant press, judging you to be a man among your fellows, should interview you on a subject relating to veterinary matters and *expose* your name, your titles, and your Standing (with a large S),—well, of course, you cannot help *that*, THAT is done without your sanction—in spite of you—and those naughty, *naughty*, NAUGHTY reporters are so awful, *awful*, AWFUL!

Shall I go a little into detail? Who is writing this article? JOHN A. MCLAUGHLIN, D.V.S., double underlined of course; who means to put it in prominent type. Why do I put it in prominent type? Why—it's a proper name!—and a proper title! I leave the JOURNAL on a prominent place on my desk; I may even put a large blue pencil mark around its typographical position in the index; unless I so marked it, my friends might not recognise that I had voiced my opinion in print, and they would be *so* disappointed. Of course, I wouldn't write such an ebullition for the public prints; but am I judging rashly when I say our worthy editor would not die of chagrin if he should, at to-morrow noon, receive subscriptions for a hundred thousand copies, each and every subscriber a member of the laity. It would be a good sign—a glorious sign! It would prove the public were interesting themselves—excuse me!—that WE were interesting the public! That great big WE again! it is always in my road. At all events, we are free to teach the laity through a scientific journal, as every man, woman, and child on God's footstool may read it. They may reprint our ideas in those awful public prints, but we cannot, without prostituting the profession, and relegating ourselves to the sphere of professional criminals, go into the public prints with any such intention. If we should (or could) contribute to the *North American Review*, *Forum*, *Popular Science Monthly*, *Nineteenth Century*, etc., where our names would appear side by side with Professor Flint, General Grant, Ouida, Henry George, the Rev. Dr. Savage, Cardinal Manning, etc., etc., it would doubtless be all right. Why, I don't know!—do you? But brother ordinary practitioner, there is an awful lot of *hocus-pocus* business about this advertising, or rather non-advertising scheme; it injures but one class of the public, but one class of the profession. Let us pull off the veil that has grown so thin that we can see through it; let us all have a taste of the honey beneath (if it is honey), and not restrict the sweet morsel to those who are perched on the border, and who can quietly lift up the edge and regale themselves when they choose.

(*To be continued.*)

PROSECUTIONS BY THE ROYAL COLLEGE OF VETERINARY SURGEONS.

At Woodbridge Petty Sessions on 3rd June, 1891, before Major-General Hessey (chairman), Major Howey, W. N. Waller, Esq., J. B. Hart, Esq., and H. J. Harwood, Esq, Aaron James Leggett, of Grundisburgh, was charged under section 17 of the Veterinary Surgeons Act, 1881. Mr. J. J. King (Ipswich), instructed by Mr. Thatcher, the solicitor to the College, prosecuted on behalf of the Royal College of Veterinary Surgeons. Defendant pleaded not guilty, saying that he had been a veterinary surgeon for twenty-eight years. Mr. King put in the register of the Royal College of Veterinary Surgeons, from which it appeared that the defendant's name was not included either in the list of members of the College or that of registered practitioners. There was, however, the name of "J. A. Leggett, Regent's Park, London" in the latter list, and this the defendant asserted was meant for him, as his proper name was James Aaron Leggett, the address being an error. Evidence having been adduced as to the defendant's practising as a veterinary surgeon, the magistrates convicted, fining him £5 and £1 1s. costs; in default of distress, one month's hard labour.

LONGFORD PETTY SESSIONS.

On Monday, 8th June, 1891, before James W. Bond, Esq., D.L., B. Hill, Esq., R.M., Thomas O'Reilly, Esq., and T. H. Peyton, Esq., Mr. Patrick Duffy, of Arvagh, was prosecuted by the Royal College of Veterinary Surgeons for using the title of Veterinary Surgeon without proper qualification. Mr. R. V. Maxwell, instructed by Mr. Thatcher, the College Solicitor, conducted the prosecution. Mr. Maxwell hand[illegible] in the sealed authority of the College for the prosecution, also the register to show that defendant's name did not appear in it. He called Mr. R. B. Prentice, who deposed that he was present at the Hilary Quarter Sessions at Longford, when Mr. Duffy in the witness-box represented himself to be a veterinary surgeon. Mr. Duffy stated that his final examination was in two halves, and he had passed one of them. Mr. Hill said that did not matter if he had not passed the one required. After some remarks the Bench fined the defendant £5 and costs, with a sentence of imprisonment in the event of default.

Reviews.

CHAUVEAU'S COMPARATIVE ANATOMY OF THE DOMESTICATED ANIMALS. Translated and Edited by GEORGE FLEMING, C.B., LL.D., etc. 2nd Edition. (London: J. and A. Churchill, 1891.)

For obvious reasons, a critical examination of this unequalled and well-known treatise is dispensed with in this Journal, the following preface to the new edition by the translator and editor being deemed sufficient notice:—

"Since the translation of this work into English, seventeen years ago, it has been several times reprinted, the last occasion being in 1889. Circumstances had, however, for some time indicated that there was need for a revision of the work, in order to bring it up to the requirements of the present day; and the issue of a fourth French edition last year was considered a favourable opportunity for undertaking the task.

"In preparing this second edition, the necessities of advancing veterinary education in the English-speaking schools was kept in view, and this entailed considerable amendments, alterations, and additions, in order to adapt it more perfectly to the conditions it should fulfil as a text-book and standard work of reference on the subject.

"The high esteem in which the first edition has been held for so many years in this country, in our colonies, and in the United States of America, amply testifies to the value of the work; and in this new edition everything has been done to render it still more comprehensive, complete, and useful. The anatomy of the ass, mule, and rabbit has been added, as well as that of the camel—that animal being utilised not only in our army in different parts of the world, but also in some of our colonies. The number of illustrations has been increased by more than one hundred and thirty, the pages have been enlarged, and the letter-press so modified as to make reading and reference much easier.

"A copious index—there is none in the French edition—has also been added, with the view of enhancing the usefulness of the book as a work of reference for students and practitioners.

"With these alterations, additions, and modifications, I trust the work may continue to be accepted as in every way worthy of the position accorded to it as the best on the subject.

"The editorial remarks—for which, as for the translation, I assume the entire responsibility—are included in brackets, as in the first edition."

It may be mentioned that great improvements have been made in every section of the work, but more especially in those devoted to osteology, the nervous system, and embryology. The edition is published "In commemoration of the Centenary of the Royal Veterinary College, London, the parent of veterinary schools in English-speaking countries; and in memory of Charles Vial de Saint-Bel, Equerry to Louis XVI. of France, Principal of the Lyons Academy, Professor in the Royal Veterinary School of that city, and demonstrator of Comparative Anatomy at Montpellier; who, when a refugee from the great French Revolution, was chiefly instrumental in establishing the first English Veterinary School, in which he was the first teacher, 1791."

A Scientific and Practical Treatise on the Diseases, Lameness, and Accidents to which the Horse is Liable. By W. S. Adams, M.R.C.V.S., A.V.D. (Madras: G. W. Taylor, 1891.)

Mr. Adams, an officer of the Army Veterinary Department, for some years attached to the Reserve Remount Depôt, Hosur, India, and already favourably known as an accomplished and prolific contributor to veterinary literature, has just produced a very excellent book, which is certain to be found most useful to veterinary surgeons in and out of India.

Following chiefly the classification and nomenclature adopted by the Department, he has given the principal diseases and accidents to which the horse is liable in a clear and often interesting description, in which

the practical side of the subject receives most attention; and though, of course, India is the country to which reference is specially made in connection with horse management and veterinary treatment, yet his remarks are frequently as applicable to other countries. The illustrative cases given are valuable for reference, and show the importance of chronicling observations—a custom which has been in vogue with Mr. Adams for many years, and which he and others reap the advantages of. The book now issued well deserves the approbation of those for whom it was written, and is certain to be accepted as a standard work on the subject, being the fruit of the long experience and close observation of a well-trained mind.

OUR CANINE COMPANIONS IN HEALTH AND DISEASE. By J. WOODROFFE HILL, F.R.C.V.S. (London: Swan Sonnenschein and Co., 1891.)

This is a popular little book for dog-owners and, we presume, for dog-judges and fanciers. There is not very much to interest veterinary surgeons in it, except perhaps the sections on Canine Persecution and Muzzling. Few members of the profession will agree with Mr. Hill in his denunciations of the measures which have ever been successful in suppressing outbreaks of Rabies, and when he asserts that great numbers of dogs have been ruined, and not a few killed, by muzzling, it may be inferred that his experience has been unique. He makes no allusion to the number of human lives lost because of the absence of efficient measures for dealing with rabid and dangerous dogs.

Proceedings of the Royal College of Veterinary Surgeons and Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

SPECIAL MEETING OF COUNCIL, HELD JUNE 3RD, 1891.

Mr. W. B. WALTERS, Vice-President, in the chair.

PRESENT:—Professors Penberthy and Walley, General Sir Frederick Fitzwygram, Dr. Fleming, Messrs. J. D. Barford, John Burnett, B. Cartledge, Thomas Greaves, William Hunting, H. Kidd, John Malcolm, A. W. Mason, W. J. Mulvey, J. Brodie Nisbet, F. Raymond, James F. Simpson, Peter Taylor, R. C. Trigger, W. B. Walters, A. Wheatly, Mr. Thatcher (Solicitor). Mr. Robinson acted for Mr. Hill, who was unfortunately absent through illness.

The CHAIRMAN stated that he had received a telegram from Mr. Hill, the Secretary, regretting being unable to attend the meeting owing to a severe attack of Influenza.

The notice was read convening the meeting.

Absentees.

Mr. ROBINSON said that letters had been received from Sir Henry Simpson, Professor Brown, and Messrs. Simcocks, Whittle, Briggs, Rutherford, and Lambert, regretting their inability to attend the meeting.

Communication from the President.

The following letter was then read from Professor McCall, the President of Council:—

Glasgow Veterinary College.

June 1st, 1891.

To the Members of Council, Royal College of Veterinary Surgeons.

Gentlemen,—I regret that my official duties as President of the Monkland Agricultural Association prevent my presence at your meeting on Wednesday next.

I also regret that the meeting has not as usual been earlier in the month after the annual gathering, and desire to explain that its postponement was to permit of the presence of those members of Council unavoidably engaged in the examination of the students at the various colleges.

With these, I consider necessary explanations, I now beg to place in your hands my resignation of the office of President of the Royal College of Veterinary Surgeons, and in doing so I desire to tender my sincere thanks, not only to the Council as a Council, but to each individual member composing the body.

My appointment was a unanimous one, and for that great honour I desire again to express my gratitude, but I feel that I am under a still deeper obligation for the loyal and brotherly support given me (and that without a single exception) in the conduct of the business of the College.

I feel, however, disappointed in that greater progress was not made in carrying forward the several measures introduced during my term of office, but I am hopeful that the position in which I have left them may enable my successor during his term of office to see them all carried out to a satisfactory issue.

It would also have given me great pleasure to have installed the gentleman of your selection in the presidential chair, but that pleasure I am denied; however, I can assure him (in prospect) that he has my warmest sympathy, and will have my unfailing support in discharging the many and important duties which I foresee will fall to his lot in greater profusion than any of his predecessors in office. Again, thanking you for the honour conferred in electing me your President, and expressing the hope, as I now do, that I hand down to my successor the presidential chair in no way tarnished by my occupancy thereof,

I remain, Gentlemen,

Yours most sincerely,

JAMES MCCALL.

On the motion of Mr. PETER TAYLOR, the minutes of the previous meeting were taken as read and confirmed.

Election of President.

Mr. BARFORD said that the meetings of the Council had been presided over during the past year in a most exemplary manner by Professor McCall, and in a way calculated to win the confidence of any Council or Board. The calm and mature judgment Professor McCall had always brought to bear upon the business of the Council entitled him to their respect and thanks, and he had great pleasure in moving his re-election as President for the ensuing year.

Dr. FLEMING, in seconding the motion, said that one very strong reason why Professor McCall should be re-elected was the fact that he is one of the Vice-Presidents of the National Congress of Hygiene to be held in August, and his name had appeared in the public prints as representing the Royal

College of Veterinary Surgeons. He hoped the vote would be a unanimous one.

Mr. WILLIAM HUNTING opposed the motion on the ground that the profession had recently, on more than one occasion, expressed its objection to making the appointment of President a continuous and annual one. It was from no want of respect or admiration to Professor McCall that he opposed his re-election, but he thought the precedent of re-electing a man to the post should not be established so long as the opportunity of getting other men was afforded.

Mr. MULVEY moved that Mr. J. D. Lambert, Principal Veterinary Surgeon to the Army, be elected as President.

Mr. RAYMOND seconded the motion.

Mr. JAS. F. SIMPSON said he thought that the wish of the profession that there should be direct representation from the profession to the Council ought to be carried out. If he supported Mr. Lambert's election, he should be acting contrary to the wishes of the profession; whereas, if he voted against him, he felt that he was voting against a very excellent man. Other members of the Council were probably in the same difficulty.

General SIR FREDERICK FITZWYGRAM said that it was obviously the wish of the profession that the best man should be appointed to the office of President, and he conceived the fact that Professor McCall having enjoyed the confidence of the Council during the past year should be no obstacle to his being re-elected. If a man were to be excluded on such grounds, he thought it would be adopting a very ultra-conservative measure. He thought the best man should be appointed, whether he was a Vice-President or not.

The ballot for the election of President was then taken, and Mr. Lambert was declared to be elected; the votes being:—For Mr. Lambert twelve, for Professor McCall seven.

Election of Vice-Presidents.

The following gentlemen were nominated as Vice-Presidents:—Mr. Wragg, Professor Axe, Mr. Malcolm, Mr. Charles Rutherford, Professor Pritchard, Mr. James Fraser, Mr. Anderson, Mr. Kettle, Mr. Blakeway, Mr. W. A. Edgar, and Mr. Richard Rutherford.

The ballot was then taken, the voting being as follows:—Mr. Wragg 11, Professor Axe 6, Mr. Malcolm 14, Mr. Charles Rutherford 3, Professor Pritchard 5, Mr. James Fraser 11, Mr. Anderson 9, Mr. Kettle 10, Mr. Blakeway 12, Mr. W. A. Edgar 12, and Mr. R. Rutherford 5.

The CHAIRMAN declared Messrs. Malcolm, Blakeway, Edgar, Wragg, Fraser, and Kettle to be duly elected as Vice-Presidents.

Election of Secretary and Registrar.

On the motion of Dr. FLEMING, seconded by Mr. J. F. SIMPSON, Mr. A. W. Hill was unanimously re-elected as Secretary and Registrar.

Election of Treasurer.

Mr. MULVEY moved that Mr. Wragg be re-elected as Treasurer of the College.

Professor WALLEY seconded the motion, which was carried unanimously.

Mr. BARFORD asked whether Mr. Wragg had not a right to a seat on the Council *ex officio* as Treasurer.

Mr. G. THATCHER (Solicitor) said there was no doubt that the Treasurer was entitled to sit on the Council *ex officio*, but he doubted whether he had voting powers, unless he was a Member of Council or a Vice-President.

On the motion of Dr. FLEMING, a vote of thanks was passed to Mr. Walters for occupying the chair.

Professor WALLEY said he should like to know the general feeling of the

Council with reference to the Matriculation Examination. He should like to know whether there was any probability of the old examination being allowed to go on for a year or two longer, because the teachers were in a difficulty as to what to do with their prospectuses.

Mr. GEORGE THATCHER (Solicitor), in the Secretary's absence, said that notice of a motion had been given, which would come on at the next meeting, that the old rules should remain in force for the present.

On the motion of Mr. KIDD, seconded by Professor WALLEY, a hearty vote of thanks was accorded to the retiring President (Professor McCall) for the manner in which he had presided over the Council during his term of office.

The proceedings then terminated.

GLASGOW VETERINARY COLLEGE.

THE examinations for the diploma of the Royal College of Veterinary Surgeons began at the above school on May 29th, when the following gentlemen passed the second (or practical) part of the final examination, and succeeded in obtaining the diploma of the Royal College of Veterinary Surgeons, viz. :—Messrs. Charles Seely, Lincoln; W. H. Wilkinson, Flint; John Abbott, Leytonstone, Essex; William Ledger, Limaskea, Co. Fermanagh; James A. Jordan, Belfast; F. J. Boyle, Ballymoney, Co. Antrim; and Stuart C. Pottie, Sydney, New South Wales. Mr. James Forrest, Glasgow, also passed the first (or theoretical) part of the final examination.

Twenty-five students presented themselves for the B (or second) professional examination, and of this number sixteen passed, two with "very great credit," and three with "great credit," viz. :—Daniel Hamilton, Fordingbridge, Hampshire; Robert Aitkenhead, Pollokshaws, Renfrewshire; Robert Ward, Southport, Lancashire; W. O. Robertson, Selkirk; William Crowley, Kilrush, Co. Clare; David Lochhead, Paisley, Renfrewshire; William Galloway, Dumbarton; H. M'Connell, Armagh, Alex. Crabb, Glasgow (v.g.c.); David Stewart, Inchinnan, Renfrewshire; Alex. Jackson, Blantyre, Lanarkshire; James Furniss, Leeds, Yorkshire; Alex. M'Nairn, Newton-Stewart, Wigtownshire (v.g.c.); William Dawson, Cootehill, Co. Cavan (g.c.); Gordon Stewart, Ballymena, Co. Antrim (g.c.); and George Irvine, Glasgow (g.c.).

The following students passed the A (or first) professional examination, viz. :—Robert Margrave, Swansea, Glamorganshire; Joseph Magee, Tullintrain, Londonderry; Archibald Walls, Stirling; Henry O. Boyle, Randalstown, Co. Antrim (g.c.); Hugh M'Cartney, Neilston, Renfrewshire; Sydney B. Clode, Cadiff, Glamorganshire; Alexander McDougall, Irvine, Ayrshire (g.c.); James Paton, Perth (v.g.c.); James Steel, Dalry, Ayrshire (v.g.c.); John Kerrigan, Clydebank, Dumbartonshire (g.c.); Herbert E. H. Davies, Swansea, Glamorganshire; Robert Moore, Diseworth, Leicestershire (v.g.c.); David Stirling, Dunoon, Argyllshire (v.g.c.).

Medals granted by the Highland and Agricultural Society of Scotland; The late Professor Allen Thomson, of London; Mr. Thomas Campbell, F.R.C.V.S., Kirkcudbright; and Principal McCall; and certificates of merit, were awarded in the different branches of study as follows, viz. :—

Horse pathology (written examination).—Silver medal, Stuart C. Pottie; first-class certificates, J. A. Gilruth, Randolph Campbell, and William Marshall; second-class certificates, J. A. Jordan, Arch. Campbell, and James Forrest.

Cattle pathology (written examination).—Silver medal, J. A. Gilruth; first-class certificates, S. C. Pottie, Randolph Campbell, and William Marshall; second-class certificates, J. Douglas, James Forrest, and J. A. Jordan.

Morbid anatomy (written examination).—First-class certificates, S. C. Pottie, J. A. Gilruth, and J. A. Jordan; second-class certificates, Randolph Campbell and John Neill.

Practical examination of horses as to age, soundness, operations, etc. (gold medal by Principal M'Call).—J. A. Jordan.

Practical examination of cattle and sheep as to age soundness, operations, etc. (gold medal by Mr. Campbell).—J. A. Jordan.

Materia medica and therapeutics.—Silver medal, John Neill; first-class certificate, F. Barton; second-class certificate, Stuart C. Pottie.

Senior anatomy.—Silver medal, James Furniss; first-class certificates, A. M'Nairn, and W. Dawson; second-class certificates, D. Lochhead and D. Hamilton.

Physiology.—Silver medal, W. Dawson; first-class certificates, James Furniss and George Irvine; second-class certificates, D. Lochhead, D. Hamilton, A. Crabb, and A. M'Nairn.

Best professional examination in anatomy (gold medal by the late Professor Allen Thomson).—A. Crabb.

Junior anatomy.—Silver medal, R. Moore; first-class certificates, J. Magee and J. Paton; second-class certificates, D. Stirling and H. O. Boyle.

Chemistry.—Silver medal, J. Paton; first-class certificates, J. Magee, R. Moore, and D. Stirling; second-class certificates, H. Davies, H. M'Cartney, J. Kerrigan, S. B. Clode, J. Steel, and W. L. Webster.

Botany.—Silver medal, J. Magee; first-class certificates, J. Paton and R. Moore; second-class certificates, D. Stirling, W. L. Webster, S. B. Clode, and A. M'Dougall.

Principal M'Call's bursary of £20, or a gold medal the value of that amount, for the student who obtained the highest aggregate marks in his first and second professional examination before the board of examiners, was awarded to Alexander M'Nairn.

NEW VETERINARY COLLEGE, EDINBURGH.

THE distribution of prizes and certificates to the successful students attending the College, took place in the College on May 23rd, before a large gathering of students, teachers, and friends. Principal Williams said that the session just closed had been an exceptionally interesting one, owing to the outbreak of the disease known as Pink-eye, a contagion which had created great devastation among horses, especially in England. A difference of opinion had arisen as to the treatment of that disease, and certain remarks had been made about their treatment of it. Notwithstanding these remarks, which rather reflected upon their character, he could safely say that at the termination of the session he could call at least 180 witnesses, who would testify that their treatment of the disease was a most successful one. Another thing which had occurred during the session was, that he had differed with the officers of the Privy Council and others as to the introduction into this country of the so-called Pleuro-pneumonia from America. Pleuro-pneumonia, he maintained, could have been dealt with quite as effectively by means of inoculation, and would not have caused one-hundredth part of the expense as the Government's slaughter order had done. In handing the prizes to the students, he stated that the session had been a very satisfactory one.

The following is the prize list:—

Principal's £20 prize for best first and second professional examinations divided between C. Haywood and J. Connochie.

Pathology of the Horse: Medal, C. Haywood. Certificates: First Class, R. Eaglesham, H. E. Richardson, W. S. Lamont; Second Class, J. McL. Young, L. Browne.

Pathology of the Ox, Sheep, Pig, and Dog: Medal, C. Haywood. Certificate of Merit, J. McL. Young. Certificates: First Class, R. Eaglesham, H. E. Richardson, W. S. Lamont; Second Class, A. J. Dalgleish.

Morbid Anatomy: Medal, C. Haywood. Certificates, J. McL. Young, H. E. Richardson.

Demonstrator of Morbid Anatomy: Medal, J. McL. Young.

Senior Anatomy: Medal, O. C. Bradley. Certificates, A. P. Gribben, F. B. Pearson, J. M. Arthur.

Physiology: Medal, O. C. Bradley. Certificates, F. P. Pearson, A. P. Gribben, E. W. Anderton.

Histology: Medal, R. M. Pender. Certificates, O. C. Bradley, F. B. Pearson, A. P. Gribben, E. H. Stent, H. G. Hewetson, G. B. Holden.

Junior Anatomy: Medal, H. G. Bowes. Certificates, F. W. Smith, M. Hutchinson, M. F. Lynch, H. B. Elliott, F. H. Shore.

Chemistry: Medal, H. G. Bowes. Professor's Medal, F. W. Smith.

Practical Chemistry: Medal, T. R. Mulcahy. Certificates, J. K. Baillie, T. O'Donnell, R. Peech.

Botany: Medal, M. Dee. Certificates: First Class, L. G. Farr, M. F. Lynch; Second Class, H. G. Bowes, G. E. Gibson, T. R. Mulcahy.

Veterinary Medical Society—Best Essay: Medal, J. McL. Young.

Veterinary Medical Society—Best Communication: Medal, O. Ducksbury.

Practice: Medals, R. Eaglesham, T. Jowett. Certificates, J. McL. Young, J. Connochie, C. Haywood, J. Carpenter.

Curators of Museum: Medals, R. Eaglesham, G. W. Balfour.

Veterinary Hygiene (Principal's class) Medal, D. W. Simpson. Certificates: First Class, H. M. Pattullo, J. S. Gordon, P. H. Foulkes; Second Class, T. D. Mitchell, R. J. Irving, A. B. Stevens.

Veterinary Hygiene (Professor W. O. Williams' class): Medal, D. W. Simpson. Certificates: First Class, P. H. Foulkes, J. Milligan; Second Class certificates, A. B. Stevens, T. D. Mitchell.

At the recent examinations of the Royal College of Veterinary Surgeons held in Edinburgh, the following students from the New Veterinary College passed their examinations (g.c., great credit; v.g.c., very great credit.).

First Professional Examination:—O. T. Archer, J. R. Baillie, H. G. Bowes, F. Douthwaite, H. B. Elliott, L. G. Farr (v.g.c.), G. E. Gibson, J. H. Gillespie, F. W. Hall, J. R. Hamilton (g.c.), M. Hutchinson (g.c.), M. F. Lynch (g.c.), W. S. Malone, T. R. Mulcahy (g.c.), T. O'Donnell (g.c.), R. Leech, J. J. Scott, F. H. Shore, H. W. Southall, F. W. Smith (v.g.c.).

Second Professional Examination:—E. H. Anderton, J. M. Arthur, O. C. Bradley (v.g.c.), A. T. Copeland, W. O. Dawson, G. Ellis, J. A. Evans, A. P. Gribben, G. B. Holden (g.c.), F. B. Pearson, H. Percival, C. S. Smith, E. H. Stent, G. M. Williams, E. E. Wood.

Final (Theoretical) R. J. Bushnell, L. Browne, W. Bushnell (g.c.), G. W. Balfour, R. Eaglesham, C. Haywood, W. S. Lamont (g.c.), H. E. Richardson, G. de L. Tinkler.

The following gentlemen passed the second (or practical) part of the final examination, and succeeded in obtaining the diploma of the Royal College of Veterinary Surgeons:—

L. Browne	Coleraine, Ireland
W. Bushnell	Abergele, N. Wales
R. Eaglesham	Inveresk, Edinburgh
E. Fern..	Macclesfield
C. Haywood	Leicester
W. S. Lamont	Moneyrea, Co. Down
D. Leonard	Cork
J. M. Maxwell	Kirkcubbin, Co. Down
H. E. Richardson	Hull
A. H. Spinks	Llandudno, Wales
W. Westgate	Norfolk.

ROYAL DICK VETERINARY COLLEGE.

Distribution of Prizes.

THE annual distribution of prizes in connection with the Royal Dick Veterinary College took place on 23rd May, in the Council Chambers, Edinburgh. Bailie Turnbull, in the absence of the Lord Provost, presided, and said he was glad to hear from Principal Walley that this year greater numbers of students and greater progress had been made than in any of the many years of the College's existence—more so, because the different Colleges throughout the country were teaching veterinary science in a way which was progressing every year.

Principal Walley said: We meet, Mr. Chairman, Ladies, and Gentlemen, under peculiarly encouraging conditions, at the termination of a long and arduous session, to perform a very pleasant function, viz., to distribute, not prizes, but rather awards for merit. It is necessary that, at the outset, I should explain the reason for the increase in the number of medals as compared with previous years. Hitherto, the practice has been for each teacher to supplement the ordinary prizes by others of a miscellaneous character, such as books; but it was thought that a spirit of emulation would be stimulated amongst the students if awards were within reach of a greater number, and that medals were an enduring and substantial form of reminding them of their friendly struggles with each other for supremacy.

In reference to the progress of the College, as noted by the Chairman, the Principal said it was certainly very gratifying to his colleagues and himself to find that their labour had borne such abundant fruit; indeed, the classes had increased to such an extent as to necessitate additions to the teaching staff. During the early part of the session, they had had the assistance of Mr. Arthur Breakell, and during the latter, Mr. A. E. Mettam, both distinguished alumni of the College; and he might say that there was every prospect of the latter gentleman becoming a permanent member of the staff. In looking over the pass list hereafter, friends of the College would probably be struck with the disparity of numbers in the students of the C. class, as compared with those of the A. and B. classes. This disparity was partly accounted for by the progressive annual increase in the number of students joining the College, and partly by the fact that there existed in the rules of the diploma-granting body a majority rule, which precluded any student from entering himself for the final examination until he had attained the age of twenty-one. In conclusion, he Principal said that, while congratulating those who had been successful in the race, he must offer a word of sympathy to those who had been unsuccessful, and at the same time he must warn the successful members of the junior classes that, unless they continue to persevere, they would probably find their position and that of their less fortunate class-mates reversed before the end of their curriculum.

The Chairman then presented the prizes as follows:—

Gold Medals: Veterinary medicine and surgery, W. Sturdy. Cattle Pathology (presented by Mr. Alexander Harris), W. Sturdy. Senior Anatomy: T. G. Heatley. Physiology: T. G. Heatley. Chemistry: Alex. Panton.

Silver Medals (presented by Highland and Agricultural Society): Junior Anatomy: G. Green. Senior Anatomy: G. W. Sturgess and C. Hey. Physiology: G. W. Sturgess. Veterinary medicine and surgery: Alex. Pottlie, Paisley. Cattle Pathology: Alex. Pottlie. Chemistry: J. H. White. Materia Medica: W. Sturdy. Practical Pathology: W. Sturdy, Botany: George Green. Practical Botany (presented by Dr. Macfarlane): Alex. Trotter. Best Collection of poisonous and medicinal plants (presented by Mr. J. Donald, F.R.C.V.S.): G. W. Sturgess.

Edinburgh Veterinary Medical Association Medals: For the Best Essay of the session: W. M. Pye. For the Best Communication: W. Sturdy. Certificate as secretary: W. M. Pye.

Dick Bursary of Twenty Guineas for the highest proportion of marks obtained in the various class competitions throughout the curriculum: W. Sturdy.

Bronze Medals: Botany: J. D. Stewart. Chemistry: Joseph Harry, J. Laverty, J. Lazenby, and G. Green. Junior Anatomy: J. D. Stewart. Senior Anatomy: A. Macfarlane. Practical Histology: J. D. Stewart. Practical Pathology: Wm M. Pye. Veterinary medicine and surgery: Wm. M. Pye. Physiology: C. R. Neale. Cattle Pathology: Wm. M. Pye, Alex. Burnfield. Materia medica: W. M. Pye. Clinique: W. Sturdy. Practical Chemistry. J. H. White.

Microtome and Certificate: Presented by the Principal to W. Sturdy, as pharmacist for the session.

CENTRAL VETERINARY MEDICAL SOCIETY.

At the meeting held on May 7th Mr. Gosling acted as Secretary.

A letter was read from Mr. Villar.

Professor Penberthy and Mr. Duck were elected Fellows.

Mr. Raymond proposed, and Mr. Gosling seconded, "That the Society expresses its sincere regret at the resignation by Mr. Sidney Villar of the Hon. Secretaryship of the Society."

The resolution was unanimously agreed to.

Mr. Raymond proposed, and Mr. Sheather seconded, "That this Society accepts with sincere regret the resignation of Mr. Sidney Villar of his office of Hon. Secretary."

This resolution was also agreed to unanimously.

Mr. Raymond moved, "That this Society records its best thanks to Mr. Villar for the efficient way he has carried out his duties."

Mr. Sheather seconded, and the resolution was agreed to unanimously.

Mr. Raymond next proposed "That the Council be requested to vote a sum of money sufficient to present their thanks to Mr. Villar on vellum."

Mr. Sheather seconded the resolution, which was also unanimously carried.

Mr. Root proposed that Mr. Rogers be asked to accept the Hon. Secretaryship of the Society.

Mr. Raymond seconded the motion.

Mr. Rogers having assented, the resolution was agreed to unanimously, and Mr. Rogers thanked the Society for his election.

Dr. Fleming then read his paper, "Are Horses Liable to Menière's Disease?" *

Mr. Sheather said that he was deeply interested in this matter, as he himself was supposed to have suffered from the disease fourteen or fifteen years ago for about a fortnight, but his hearing was now perfect. This led him to make inquiries into the disease. He had seen about a dozen cases in horses. One horse in a drag was attacked. Upon the team being pulled up it recovered itself. Another horse he forced on, and he went well, but he had attacks about once a fortnight. One horse which was sent to work in a London cab, however, showed no similar symptoms since. Another horse had never been attacked since, but was now deaf. On several occasions he would have cases reported to him with regard to coach-horses; and this led him to think that in some measure the disease might be due to the digestive

* This paper was published in last month's Veterinary Journal.

organs, for coach-horses worked for a few hours only—mostly one hour, and for twenty-three hours they were in the stables, while they were very highly fed and worked hard while they were in harness. He had never heard of a saddle horse showing symptoms, nor a short necked common-bred horse, and it was probable that the disease was caused from a condition of extreme pressure—slowness and pulse suddenly changed to an excited state. Other horses, after coming from the stable, mostly walked for some time before they were put into a trot, relieving a certain slowness of circulation, and allowing the heart to work with an increased activity. The collar caused a pressure on the two vessels that took blood to the head, and consequently they got two blood pressures of unequal extent. He had done nothing hitherto but to give a dose of physic in such cases and put the animal to work again.

Mr. RAYMOND: Do you say it may be hæmorrhage in the labyrinth?

Mr. SHEATHER replied in a bad case it would be hæmorrhage, but in a mild case, congestion.

Mr. RAYMOND said he had never seen a case of this description, unless it was in a pony of his own, and this afternoon Mr. Sheather said that the disease was probably caused by rupture of a blood vessel into the labyrinth. If this was so it was strange that it passed off so quickly. He would not pretend he was speaking entirely without authority; he quite followed Mr. Sheather, and his own idea would be that it was Neuralgia in the ear. Human beings leaned their heads on the side that was affected, and it was likely to be the case with the horse. Neuralgia came on and passed off very suddenly. Sometimes a person may have Neuralgia once and never again.

Mr. PRUDAMES said the disease was known to him only that afternoon. Although Mr. Sheather's theory might not be the correct one, he thought it was a step towards elucidating the nature of the disease. It was only in extreme cases that the blood vessels gave way, and they were mostly fatal. He could not follow out the Neuralgia idea. It was very rare indeed for a human subject to be only once in a lifetime attacked with Neuralgia.

Mr. ROGERSON said he recollected a few years ago driving a horse in the neighbourhood of the New Forest. This animal ran on one side, and on his returning the groom said it must have been a gnat that had got into its ear. It was possible during hot weather that this was the cause.

Mr. GREGORY said the disease was not ordinary Megrims, but he had never thought of anything else being the cause but Indigestion. He would now take care to ascertain the symptoms more exactly.

Mr. SHEATHER said when the attacks came on, the horse did not stop, but always went forward or sideways. It was four or five minutes before the horse apparently recovered in the case which he placed on record.

Mr. KENDALL said he had seen four or five similar cases. He had driven a cob for three years, and whenever he took it out it would lay its ear down and bore towards its right side. He gave it physic but it was no good. The season of the year made no difference to the animal. This was a short *bow* (bull?) necked, and not a curved-necked animal like Mr. Sheather's.

The CHAIRMAN said it appeared that the symptoms were the same both in the human subject and the equine species. He was rather afraid that he and his professional brethren had mixed up the disease with Megrims. Of the eleven cases recorded that night, nine were on the left side and only two on the right. He well remembered, in 1885, having a grey mare which he had driven five months, and she acted in such a manner that he sold her. He put this case down as Megrims. The animals after an attack were covered with perspiration.

Mr. SHEATHER: It runs all over them.

The CHAIRMAN said that the animals were taken all at once, trembled and

ran to the right or forward; the seizure lasted about seven or eight minutes. He thought it was not, in the cases he had seen, owing to the pressure of the harness. It was a very interesting subject, and deserved careful investigation. He had known the disease to show itself both in winter and summer, and at all times of the night and day.

Dr. FLEMING, in replying, said he was glad to hear of the case in the saddle horse. His cases were harness horses. He scarcely thought the cause was due to disordered digestion, as if it were they would find more cases than existed. It was difficult to say if Neuralgia existed in animals. They could not tell their feelings, but he thought by the manner in which the horse in this disease carried its head to one side tended to show that there was a disorder of the ear. It was rather an important point as to whether a veterinary surgeon would be liable for damages on the purchase of an animal if it showed symptoms of the disease afterwards; but he thought they had much better settle such points among themselves, rather than argue them out in the law courts.

A vote of thanks was unanimously passed to Dr. Fleming for his paper.

Mr. RAYMOND tendered his thanks to the meeting for his election to the Council.

Morbid specimens were submitted by Mr. Raymond and Mr. Rogerson.

A vote of thanks to the Chairman closed the proceedings.

The usual monthly meeting was held at the First Avenue Hotel, Holborn, on June 4th, when there were present Mr. F. G. Sampson, President, in the chair, and Messrs. W. F. Barrett, H. W. Caton, M. Clark, W. Hunting, F. C. Mahon, W. Roots, F. Raymond, J. Rowe, W. Willis, F. W. Wragg; visitors, J. Kettle, H. Kidd, A. Leather.

The Secretary, Mr. H. G. Rogers, wrote, stating that he was still unwell and unable to attend. His place was taken, *pro tem.*, by Mr. Roots, who read letters from Messrs A. Prudams and Henry Withers, expressing their inability to attend the meeting.

A letter was next read from Mr. J. V. Poor, Hon. Secretary of the Organising Committee of the Seventh International Congress of Hygiene and Demography. The writer said the Committee were desirous of obtaining the co-operation of veterinary societies of the United Kingdom. He also expressed the hope that the Society would appoint delegates to attend a meeting in August next, and he was to add that any donation they might grant towards the fund for defraying the heavy expenses would be thankfully received. Mr. Roots, at the request of the Chairman, read the programme affecting the veterinary profession.

Mr. RAYMOND said he did not know whether it would be necessary to make a donation, because it seemed to him that the Royal College of Veterinary Surgeons had really done very well by the Congress. If individual members could join he thought it would be a good thing. He himself certainly intended to join.

Mr. WRAGG took it that every man who wished to join must subscribe something like a guinea. Perhaps Mr. Hunting could give them some information.

Mr. HUNTING said a man became a member on payment of £1.

Mr. ROOTS said that would be considered apart from any individual subscription.

Mr. RAYMOND then moved "That this Society acknowledges the receipt of the programme of the Seventh International Congress of Hygiene and Demography, and suggests that members should support this Congress by attending."

Mr. WRAGG seconded the resolution, which was carried.

The following gentlemen were next unanimously elected members of the Society: Messrs. John. A. W. Dollar, 56, New Bond Street; Geo. Lansley, The Towers, Richmond; G. H. Pickwell, 5a, Shepherd Street, Mayfair; Arthur Moore, Bromley.

The CHAIRMAN then said they would proceed to the election of Mr. A. Broad and Mr. Sidney Villar as Fellows of the Society. He said at the last Council meeting it was unanimously agreed to recommend this election in consideration of the services of those gentlemen as secretaries, services which were carried out so efficiently and well. The two gentlemen named were unanimously elected Honorary Fellows.

There being no morbid specimens, Mr. Hunting was called on to read his paper.

SPRAINS OF LIGAMENTS AND TENDONS.

Mr. HUNTING said the word "paper" was a mistake. He was only going to introduce the subject for discussion. There were a few points to which he wished to draw their attention, and on which he should like to extract their experience. He did not know whether it was that he had been so long from college that he had forgotten his pathology, but he was always a little nervous in the presence of younger men when speaking of pathological matters. One never quite knew whether one was carrying coals to Newcastle, whether giving information or displaying ignorance when one talked to a lot of men recently come from college. Therefore he hoped they would excuse him if, in speaking of the causes of sprains, he told them what they knew perfectly well. It had always seemed to him that the cause of sprains as stated in books—that it was the overstretching of the ligament, from over-extension of tissue—was hardly sufficient. This implied that in the ordinary movement of the joint the ligaments of that joint were extended to their fullest degree—that, in fact, the bone was extended on the bone above it as far as it could go at each step. He did not believe that in normal action the ligaments of the body were ever stretched at all. He did not believe that in normal action a joint was ever fully extended or fully flexed. Motion was carried nearly to that extent, but the whole weight of the body and the whole relative position of the limbs were preserved by the muscles. When a horse was in progression the segments of his limb were extended or flexed by the muscles, and so long as all the movements of the muscles in front and behind acted co-ordinately, so long the white fibrous tissues never came into action at all, and never sustained any weight. It was only when the muscles failed to act that the white fibrous tissues were stretched, and whenever they were stretched they were more or less strained. In human surgery a sprain was the result of a slip. In the case of horses they could not always trace the slip, but it way undoubtedly always a slip that was the cause. A sprain arose when, from some cause or other, the muscles failed to act co-ordinately. So long as a man was walking on a level pavement he could talk to a friend or shut his eyes—his legs moved automatically, and he never made a mistake—but if he walked over a kerb, he either sprained his ankle or experienced a severe jerk. Why? So long as the pavement remained level the muscles acted automatically—they moved each bone a certain degree, and the whole mechanism went smoothly, but when the level of the ground-surface was altered the muscles continued to act in accordance with the requirements of a different plane, and weight was thrown upon the joints unprepared to sustain it. Let them consider the pre-disposing causes of sprain. When did they mostly occur? When the animal was upon slippery ground where its muscles could not co-ordinate, or sometimes when a horse was making a fool of himself coming kicking fresh out the stable; they occurred at the beginning of the hunting season when horses were out of condition, also when tired at the end

of a long run, and the tired muscles did not properly co-ordinate. He thought the whole argument seemed to prove that he was not far off the mark when he said that sprain of the white fibrous tissues of the body was always due to some want of co-ordination of the muscles. They found, too, that horses were predisposed to sprain from conformation. A horse with long legs was more liable to sprain than a horse with shorter bones, and he held the reason to be that the longer the lever, the more strain upon the muscles, and the sooner they got tired. There was a practical question on which he should like to hear the opinion of the meeting, and that was the liability to sprain in various kinds of horses. How was it that in heavy draught horses sprains seemed to be more commonly found just below the knee than in any other part, whereas in fast horses sprain was much more frequently near the fetlock, often on one of the branches of the suspensory ligament? If it was a fact there must be some explanation, either in the work of the animal or its conformation.

Sprains of ligaments were very much the same in their pathology and nature as sprains of tendons. In the horse all tendons usually sprained were in sheaths, and a tendon in a sheath was always a more serious subject of sprain than a tendon without a sheath. They had serous membranes lining the sheath; there was a greater tendency to effusion; and there was rupture of the little attaching bands that pass from the tendon to the sheath. Another thing we noticed in practice: no matter how slight the sprain was it is always a serious matter, it was a much more serious matter than a clean cut. In his experience, if the back tendons of the front leg were cut in two they would heal more rapidly, and heal more permanently, than a sprain of apparently only a slight degree.

Now the important question was about the treatment of sprains; might there be any improvement in their treatment? He took it that all men who thought about their cases at all, did not treat them by line and rule. It made a lot of difference in the measures they adopted, according to the time they saw the sprain, that is to say, according to the changes that had taken place in the part. At the very commencement of sprain, before much inflammation had been established, and before much effusion had taken place, he thought cold water, with perhaps some ice, or a refrigerated lotion, was indicated. Cold water irrigation continued for a day or two kept down the inflammation, and prevented the graver changes in tissues of the part. But when a sprain had existed a few hours and effusion had taken place, he believed cold water was a bad thing. No amount of cold water would prevent more effusion. The effect of the cold water would be to prevent absorption. He should say that once effusion had taken place, once the sprain had existed for two or three hours, hot water constantly applied was a better treatment than cold. There was a plan of treatment which he wished to theorise upon a little. He had only had experience of it on one occasion, therefore he only offered it as possibly worth more consideration—and that was pressure from the very commencement. He had seen the tendon of the foreleg treated by a man who was not a veterinary surgeon, with cotton wool and a tight bandage. It was put on shortly after the sprain occurred. He did not come in until it had been treated some time, and therefore might have thought that it was a graver sprain than it really was. Certainly the effect of the treatment by this pressure was very good indeed. If they had a tendon sprained and inflamed, one of the worst things to deal with was the large amount of effusion. The more rest they could give it, the more they could prevent the movement of the parts, and the sooner they brought some pressure to bear, the less effusion they would have. It did not matter, he thought, whether the tissue was hard or soft, it required very much the same principle in treatment. If they got a broken bone the sooner

they got it into a fixed apparatus the better—the less effusion they had the less the size of the temporary callus He was inclined to think that the same reasoning held good, he would not say in a rupture, but a partial rupture of tendon. The sooner they could fix it and prevent its moving the better.

Supposing the acute stage of the sprain had passed off, what was the best thing to do? The usual treatment was blistering or firing. He wanted to know whether the opinion of the meeting was that blistering or firing was best? whether they were any good at all? whether the old-fashioned charge or firm plaster put over the parts was not quite as good as either of them? Experience was very difficult to compare—even one's own cases presented so much variety, and one did not make notes as one ought to do. It was not safe to say that because a horse recovered that was fired, and another that was blistered did not recover, that therefore the firing was better than the blistering. He lately had adopted with slight sprains—sprains of the suspensory ligaments and also the back tendon—the following treatment in place of either blistering or firing. Wherever he could get some months of rest, he had waited until he had got rid of all acute symptoms—until there was no inflammation and the reparatory process had set in—and then he applied a charge as follows: he fixed a firm strong piece of cloth round the limb, using as adhesive material a mixture of cobbler's wax and Prout's elastic glue—four parts wax and one part glue. He had had extremely good results; at any rate he had been so satisfied with the treatment that he intended to continue it further. As to firing, the question was discussed, as they knew, a month or two since as an abusive article in *Truth*. No, it was not discussed—the individual who wrote it knew all about it, knew exactly whether it was good or bad, knew exactly its action, the exact pathology of the parts operated upon, and summed up the whole question as altogether wrong because human surgeons had given up firing. The writer did not know that human surgery had not given up firing—perhaps in some chronic diseases of the joints it was more and more used. He also begged the question in saying, that because the human surgeons had given up firing, therefore their plan was the best. It was quite certain that veterinarians often had a tremendous sprain in a horse, and that their treatment was active and heroic. It was equally certain that the horse got sound and went to work, whereas the other line of treatment often left him lame for a year. He could not make up his mind positively whether firing was good or bad, whether it was useful or not useful; but the fact of its being in existence so long was an argument in its favour. There were few things practised one hundred years that had not some foundation as common sense and fact at the bottom of them. This was rather a spasmodic opening, but probably he had offered them a few pegs on which to hang their experience, or to give him their correction.

Discussion.

Mr. BARRETT thought Mr. Hunting had put before them valuable suggestions worthy of their consideration. Mr. Hunting seemed to have attributed sprains almost entirely to a want of co-ordination in the muscles. He did not quite agree with him on the use of the word co-ordination. It seemed to him a sprain might be more correctly described as a want of ordination, or inordination of the muscular action. Mr. Hunting appeared to argue that because a man sprained a ligament when he fell over a step, it proved there was a want of co-ordination. That theory he would refute; a man did not sprain his ankle when he had mistaken the step, but probably because there was not even contact with the ground—the foot reached the ground more or less twisted; what was the result? The outer ligaments of the fetlock were stretched, and the sprain was not from want of co-ordination but from inordi-

nation, owing to the force of gravity pressing the joint outwards. It was true that cart-horses were more liable to sprain of the sub-carpal ligament. When the toe was dug in the ground the limb was somewhat bent, and an extra amount of pressure was thrown on the sub-carpal ligament. In fast-working horses, it was probably due to the extra strain thrown on the ligament at the fetlock in the act of galloping; the weight constantly came upon the foot, and the limb being advanced the fetlock tended to yield, and hence an undue amount of force was thrown upon the suspensory ligament. Mr. Hunting said a cut tendon healed more rapidly than a sprained tendon. That was due to the fact that when the tendon was cut through the inflammatory effusion was more severe. He differed from Mr. Hunting as to the treatment. It seemed to him their first effort should be to relieve pain, and then to hasten the inflammatory effusion. Mr. Hunting thought the less effusion they had the better, but if that was so, where was the healing material to come from? As to treatment, he thought firing was more effectual than blistering. He did not understand a man saying that firing was no good in a case of a sprained tendon. As to the charge, he did not recommend it to be applied too early, nor did he think it good treatment to introduce much pressure until the inflammatory action had subsided.

Mr. ROWE thought Mr. Hunting had overlooked the part concussion played in a sprain. As to treatment, he took no exception to the cement in the form of pressure, but it would have been most interesting, if Mr. Hunting told them how he removed the bandage. Neither was anything said about the time it should be kept on. When he was dealing with fractures, he tried to keep it on for about six weeks. Mr. Rowe also spoke in favour of the application of cold water.

Mr. RAYMOND thought the real secret of treating a sprain was rest. Put the horse in slings and relieve the part by putting on surgical shoes. If they had an easy case he thought pressure was a very good thing, but it had to be properly applied. It was a very unsafe thing for a veterinary surgeon to take a stiff bandage and apply it tightly to a new sprain—the odds were that there would be further swelling, with perhaps stagnation of blood. If they made a pad around the injured part with some elastic tissue, rags, or lint, or sponge, or tow—and then bandage carefully with sheet bandage, not canvas, they would derive considerable benefit from having done so, particularly if they had a high heeled-shoe, and if they rested the horse in slings to keep him quiet. Another mode of treatment was cold irrigation, but if they applied it a certain time and then left it off, the result was that a reaction set in, and the condition then was worse than if no irrigation at all had been applied. When they had got the horse's leg moderately cool, it was the custom to apply blisters, and after that to fire. Whether if they gave the horse the same amount of rest and did not blister or fire, that horse would get well just as quickly, was an open question in his mind. He was quite open to correction on that point. He went more strongly against firing than blistering. He did not know that firing was any good except in private practice, where they might have an owner who was constantly fidgetting about his horse and wanting it back. That had a great deal to do with the success of firing. As to the charge Mr. Hunting had spoken of he could quite believe what was said of it, and should certainly give it a trial when the opportunity offered. Pressure was a very good thing if carried out properly. He remembered a horse came into the infirmary with a bad sprain of the hock. He had read of pressure in some work on Surgery, and in this case he rigged up an apparatus so as to bring pressure to bear on this horse's hock. He was bound to say that it had a most extraordinary effect. The horse got well in a time which surprised him, and the swelling of the hock in the neighbourhood was very much smaller than he had expected to meet. That was one

of the reasons why he had such a high opinion of it. The surgical shoe was a very important thing, particularly in sprain of the tendon, which it relieved considerably.

Mr. CATON said in regard to sprains in cart horses, his experience tallied with Mr. Hunting's. With regard to firing and blistering, he had adopted it for twenty-five years, and he very much doubted whether firing had the effect that had been ascribed to it; he was taught it at college, but it struck him that they had to fire a horse very deeply indeed, and it was a long while before the ascribed effect took place. Rest was the great secret, and to secure that they had to do that which they otherwise would not do. With regard to slinging, there were no doubt advantages and disadvantages, but on the score of relieving inflammation there was no way in which a horse could secure rest and assist circulation better than by lying down. He should not sling a horse with a sprained tendon—he would rather let him lie down than stand up. They frequently found horses resting twenty hours a day if they got the opportunity. As to irrigation, his plan was to get twenty feet of hose and let the water run from the tap through this in a constant stream over the leg. After the abatement of the inflammation he either applied a blister or fired—or did nothing at all, as it suited his patient or the case.

The Chairman having invited visitors to speak—

Mr. LEATHER spoke of the importance of the subject, remarking that, in his opinion, at least eighty per cent. of the cases that came before them were cases of lameness, and forty per cent. were sprain in cart-horses, and generally these happened in backing. The treatment they adopted in Liverpool was very simple. They did not see the necessity of slinging. In ninety-nine cases out of a hundred a loose box was sufficient for a night or two. Cold water irrigation and blistering or firing was the general treatment, and for six or eight weeks a low diet was applied.

Mr. ROWE said that he had adopted all his life what was termed a lever shoe. The two heels were materially raised and connected by a bar of iron across. The heel was raised one or two inches, and it was gradually lowered as the horse improved.

The CHAIRMAN, speaking of sprain in cart-horses, said he should like to see Mr. Hunting apply his charge to a very bad sprain at the back of the knee, and he would like to see how he would keep his bandage up there. He could quite understand his keeping it around the lower part of the limb. He very much doubted whether the charge would keep up behind the knee. With regard to a cut tendon, he quite agreed that it would heal more rapidly than a bad sprain. He considered the principal reason was, that they got more inflammatory action from a bad sprain than from a clean cut. As to the treatment, he considered it cruelty to put cold water on a recent sprain—it was adding fuel to the fire. His treatment of a recent sprain was combining both pressure and warm fomentations. He would foment the part for half-an-hour with warm water, then put on a hot flannel bandage—he applied another one on the top of that; then some oilskin, and a dry bandage over that. That would keep hot as a permanent fomentation for five or six hours. Afterwards he would use tepid water, and gradually get it down to cold. Then came the question as to whether firing was good or bad. He knew a trainer who had had a good deal of experience of sprain, and heard him say that if they turned a horse out to grass and left him alone after they had got rid of the inflammatory action, that horse would get well just as soon as if treated. He (the speaker) asked whether it would stand work as well, and the trainer replied that he did not think he would. Neither did he (Mr. Sampson). He quite believed that a sprain would get well without firing or blistering, but he did not believe the horse would stand work without firing.

Mr. HUNTING then replied. In the course of his remarks, he said he did

not think there was much difference between Mr. Barrett and himself about co-ordination of movement except in the way it was put. It was an extremely difficult matter to express what they meant when they were trying to explain the muscular action of the limb. He was not going to dispute Mr Leather's statement that sprains in cart-horses generally occurred in backing, but he always liked a statement to be verified as much as possible, and he should take the earliest opportunity of seeing whether he could trace the same thing, because it was rather interesting information if it was right. Mr. Barrett had spoken of effused material as useful for repairing tissues. He could not allow that unless he had some very good reason given in support of it. He believed the opposite—the more effusion they had in any injury the worse the repair. He did not believe it was a nutritive material at all. He quite agreed with Mr. Raymond as to the value of rest, but as to the surgical shoe he quite disagreed. Whenever a horse met with an accident, in all conditions (except perhaps Gripes) the surgical shoe was resorted to in Manchester. When he had the pleasure of seeing practice in Lancashire, they had only to have a horse lame, and if there was no nail found in the foot on went the "patten-shoe." He wanted to know what it rested? What was it for? Was it the weight of the horse's foot that they wanted to support or what? The heel was raised about two inches, but a horse with a sprain could rest his own foot perfectly himself. If the shoe weighed eight ounces, it only increased the weight hanging on the limb. He considered this high-heeled shoe all a delusion, and it had one serious disadvantage in that it helped to shorten the tendon, and then they had the trouble of getting that foot down again. Leave it to nature. With regard to cold irrigation, Mr. Raymond had pointed out what was often overlooked, that it was no good using it for four or five hours, and then stopping, because then they had a reaction which undid all the good likely to have been accrued. As to the point of rest, he was inclined to agree with Mr. Caton that if the horse would lie down it was the best thing he could do. As to the use of hot and cold water, he did not think there was much difference between Mr. Sampson and himself. In conclusion, he urged upon them the importance of looking into the matter a little more closely and letting each other know the result of their experiments.

Mr. ROWE moved a hearty vote of thanks to Mr. Hunting, which was seconded by Mr. Caton, and carried.

The CHAIRMAN then proposed a vote of thanks to Mr. Roots for taking the Secretary's place that evening; this was seconded by Mr. Raymond, and carried.

At a Council Meeting of this Society held on May 25th, a proposition "That £50 be given to the Exhibition (or Prize) Fund of the Royal College of Veterinary Surgeons unconditionally," was carried unanimously. With regard to the Steel Memorial, it was agreed "That on the scheme being matured, a grant of twenty guineas be given to the Steel Fund, provided the money is devoted to the establishment of a prize or prizes, or an exhibition for the veterinary profession."

NORTH OF ENGLAND VETERINARY MEDICAL ASSOCIATION.

THE usual quarterly meeting of the Association was held at the County Hotel, Newcastle-on-Tyne, on May 22nd, the President, A Hunter, Esq., in the chair. There were also present Messrs. H. Hunter, D. Dudgeon, A. Chivas, H. Mitchell, W. Stevenson, G. R. Dudgeon, J. W. T. Moore, J. Gofton, W. Hunter, J. Aitken, W. Wheatley, D. McGregor, J. B. Nisbet, and W. Ashton Hancock.

Letters of regret for not being able to attend the meeting were read from

Professor McFadyean (who had promised to read a paper, but owing to the death of his father was unable to do so), Professor Williams, Messrs. J. Armstrong, C. Stephenson, and G. Elphick.

Great regret was felt at Professor McFadyean not being able to be present, and the Secretary stated that he had already written the Professor in the name of the Association, expressing sympathy in his bereavement.

The Recent Election.

The Secretary next read a short statement concerning the Society's action in the recent election, as follows:—

"The members who were present at the meeting of the Association held on April 1st last, will be aware of the proceedings that took place with reference to the election then, and at the subsequent committee meeting held on April 9th; but for those gentlemen who could not be present, I have thought fit to give you a short account of what transpired, and the best plan will be for me, perhaps, to read the minutes of those meetings."

The minutes were read, the main point in which was the instruction to the Secretary to communicate with certain Societies with a view to their co-operation in the issuing of a joint circular on the eve of the election.

"As requested I communicated with the Secretary of each of the following Associations, the Lancashire, Yorkshire, Border Counties, the Central, and the South Durham and North Yorkshire. With the exception of the Central, from whom no reply reached me whatever, and the South Durham and North Yorkshire Association, whose reply came too late, they all arranged to unite with us in issuing the circular which you know all about, and which was, as far as we can tell, such an important factor in bringing about the realization of the wishes of the profession at large.

The share of the cost to each of the Associations will be less than £3, and it was certainly money well spent, for if ever a great principle was involved in any election it most certainly was in this, and the committee feel amply repaid for any little trouble and inconvenience they may have been put to in securing the election of the candidates who were sound on the great questions that must be thoroughly sifted by the present Council."

Mr. W. Stevenson (Whitburn), proposed that a vote of thanks be accorded Mr. Mulvey for his action and spirit in the recent election, the feeling being that had it not been for that gentleman and Mr. W. Hunting, such a great measure of success could not have been attained.

Mr. H. Hunter seconded, and it was carried unanimously.

Mr. Gofton proposed that a copy of the following resolution be forwarded to the Secretary of the Royal College of Veterinary Surgeons:—

"That the North of England Veterinary Medical Association request the Council of the Royal College of Veterinary Surgeons to take into consideration the question of 'The exemption of veterinary surgeons from serving on juries,' and that no new charter be finally adopted by the Council until it has been brought before the whole of the members of the profession."

Mr. Moore said he had great pleasure in seconding Mr. Gofton's motion, and said, although he did not think any clause could be inserted in the proposed new charter that would give the necessary exemption from serving on juries, at the same time he considered it of the greatest importance that the Council should adopt every means in its power for attaining the results named in Mr. Gofton's proposal. Carried unanimously.

Discussion.

The adjourned discussion then took place on Professor McCall's paper read before the last meeting of the Society, "Are Blisters Hurtful or Beneficial in Diseases of the Chest."

The PRESIDENT said he was sorry that Professor McCall could not be present to join in and listen to the discussion, which he felt sure was one in which all the gentlemen present could take part.

Mr. D. DUDGEON, in opening the discussion, said he had listened to, and subsequently read the Professor's paper with a great amount of pleasure. He felt that the proposal brought forward for each of the Professors, (Professor McCall and Professor Williams) to treat under the two different methods say one hundred horses each was impracticable, as similar conditions and surroundings it would be almost an utter impossibility to procure; he therefore hoped such an idea would not be entertained. For his part he had found it beneficial to blister in chest diseases and Influenza, and particularly in the early stages, and believed without it many a case would have gone on and perhaps have proved fatal. Having quoted one or two cases in which he instanced the marked decrease in the pulse, respirations, and temperature, as resulting from a blister to the sides, he said, of course it could be carried too far, but his opinion was this—that he would not be doing his duty to his client if he failed to blister in chest affections, and Pink-eye. Continuing he said: I have seen good effects produced by the use of hot rugs in chest diseases, but you require good men to do this sort of thing, as there is a possibility, if the thing is not carefully done, of the patient taking a further chill.

I feel, gentlemen, that my experience leads me in the direction of siding with Professor McCall in this discussion.

Mr. H. HUNTER said he had never yet regretted a single blister that he had applied in any case, and that he never refrained for a moment to put on a fly blister in preference to mustard. He had often found it to be, so to speak, the turning point of what appeared to be very grave cases. He thought that a fly blister had a very beneficial effect as a diuretic, and it does not appear so painful to the animal. He had taken particular notice of a number of cases since the paper by Professor McCall was delivered, and for his part he would require a very great amount of evidence against blistering before adopting other methods.

Mr. CHIVAS said he could only endorse the remarks of Mr. Hunter and Mr. Dudgeon. For his part he had tried the treatment of chest affections without blisters, but he must confess he was compelled to go back to the old method and blister, for the results of non-blistering, hot water rugs to the sides, etc., had not been attended with good results. Mr. Chivas mentioned the case of a foal in which it was breathing very hurriedly, the temperature 107 and the pulse 120; he put mustard on to both sides, and twelve hours afterwards the pulse and temperature were down to the normal. He most cordially supported Professor McCall on this question.

Mr. GOFTON said he could not quite understand what Professor McCall did with two pounds of mustard. He was an advocate of blistering, but never yet had to resort to fly blister, as he had found mustard quite sufficient, although in not quite such large quantities as named by Professor McCall.

Mr. NISBET said he agreed with what had been said, especially by Mr. D. Dudgeon, with reference to the suggestion to have a certain number treated under the two different methods concurrently; he felt sure it was quite impossible to get similarly suitable places and surroundings for a test of that sort to be of any value. He seldom used the fly blister, but was a strong advocate for liniments and mustard. In colic he had obtained relief quicker from a mustard poultice than from anything else. His experience also went to show that blisters were of no use whatever in cases of long standing consolidation of lungs.

The PRESIDENT said there was practically a unanimous feeling in the discussion that had taken place. For his part he could not afford to do

without blisters, and after having mentioned an interesting case, in which the sudden benefits of blisters was demonstrated, said he must differ from his friend Mr. Gofton, who did not use fly blisters in chest affections, as he had frequently seen mustard fail and a fly blister succeed afterwards.

Mr. W. HUNTER said he was an advocate of counter-irritants, but was surprised at the amount suggested by Professor McCall, two pounds of mustard; personally he found a quarter of a pound quite sufficient. He also could not agree with the President in using cantharides; he had tried it but could not testify to good results accruing from it, but he was glad to be able to join in the testimony to the apparent suddenness with which beneficial changes were effected as the result of mustard blisters.

Mr. G. R. DUDGEON said he had tried hot water rugs and also blistering and had witnessed blisters fail and the hot water treatment succeed but his impression was, that taken from every standpoint, counter-irritation was the most advantageous method.

The SECRETARY read a communication from Mr. T. Greaves in his absence:—

The subject of counter-irritation will be brought before the members of the North of England Association on the 20th inst. A subject of such great practical importance cannot fail to be most interesting and useful. I hope to be present, for I have given much attention to it, and wish to know more of the basis upon which the principle is founded. In 1834 I was apprenticed to an intelligent and experienced V.S., who believed in bleeding and blistering in all chest diseases. I have clipped the hair off the sides of scores and scores of cases as close as if it had been shaved, for eighteen or twenty inches square, and rubbed in cantharides blister ointment—repeated on the second or third day if it had not taken good effect, but the success of this method of treatment was not satisfactory. I went to College in 1839, and after I got my diploma I entered into partnership with my late master. About this time Homœopathy became a prominent treatment, and we fell in with the current of opinion; hundreds of horses I treated with aconite, arsenicum, bryonia, etc., and I found that I had a greater measure of success.

This caused me to ponder. I could not believe that one-thousandth part of a grain of any medicine could possibly have any influence in a raging congestion or inflammation of the lungs, but there was the fact staring me in the face. I could not get over the fact; I leave much to nature, she is ever a wise economist, she does all things well. I had by this time given up blistering the sides and my success was far greater than it had been hitherto.

I remember reading in Percival's writings that no V.S. was justified in letting a patient die with Pneumonia without using not only cantharides blister ointment, but blister combined with biniodide of mercury, to his sides. Now although he was a great authority he was not a successful practitioner; even the officers in his own regiment had little or no confidence in him; whenever anything ailed their hunters, or their chargers, they called in some outside V.S. to take the medical care of them.

On one occasion my late partner sent for me to see a valuable horse of his own. He said "I have been up with him four nights, and am completely knocked up." He was then bedfast and said "I think you have little or no chance." I found the horse blowing badly, but breath sweet, pulse over 100, loathing all food. His sides and heart had been most severely blistered, and two tape setons in each side. I said, "I must reverse your treatment *in toto* or he will die." He replied, "Do whatever you like!" I at once took out the setons, sponged sides well and clean, tied head to open door, kept cloth and surcingle off his sides and placed bran tea before him; next morning pulse 96, at night 84 and he made a nice recovery. The skin of his sides sloughed.

My experience has not been inconsiderable. At the present time we have over 1,700 valuable horses under our care, and as many miscellaneous horses;

we never blister the sides, and I think the success attending our method of treatment is not surpassed—if equalled—by any practitioner I am acquainted with.—THOMAS GREAVES. W. ASHTON HANCOCK, *Sec.*

SOUTH DURHAM AND NORTH YORKSHIRE VETERINARY MEDICAL ASSOCIATION.

A MEETING of this Association was held in the North-Eastern Hotel, Darlington, on March 12th, 1891, at 4 p.m., Mr. G. T. Pickering, President, in the chair. There were also present Messrs. F. R. Stevens, J. G. Deans, A. Peele, H. Gelsthorpe, P. Snaith, T. Bowhill, H. H. Roberts, G. E. Nash, W. N. Dobbing, and W. Awde, Hon. Secretary.

Apologies for non-attendance were received from Professors Walley and Williams, and Messrs. John Fryer, John Nettelton, and W. T. Briggs.

Mr. NASH exhibited an instrument which he had designed for the purpose of making the grooves in the hoof for Smith's operation for Side-bones, etc., instead of a saw.

The SECRETARY then introduced a series of eight cases of Septic Metritis in heifers, seven of which were white in colour, and the symptoms of which are detailed by Mr. James Cooke in the March number of the "Quarterly Journal of Comparative Pathology and Therapeutics." The cases occurred during a period of two years, and relief was afforded in half of them by liberating the fluid contained in the uterus.

The discussion was then resumed on Mr. G. E. Nash's paper on "Some Diseases met with in the Cow during the First Month succeeding Parturition."

Mr. NASH informed the members that, since reading the paper at the last meeting, he had attended four cases of Parturient Apoplexy, which had all recovered under the chloral hydrate and potassium bromide treatment.

Several other members had also tried this treatment with marked success.

A resolution was then unanimously passed, "That in the opinion of the members of this Association, the carcases of animals slaughtered in the first stages of Parturient Apoplexy are fit for human food"—subject, of course, to inspection after slaughter.

A letter was read from the International Congress of Hygiene and Demography, asking for the appointment of delegates to represent the Association, and asking for a contribution to its funds.

The Secretary was instructed to reply that the funds would not allow of their contributing to the Congress, and no delegates were appointed, although several members expressed their intention of joining and attending its meetings in August.

A circular from the John Steel Memorial Fund was also read, but no sum voted, it being left in the hands of individual members to contribute what they liked.

The election of officers was next proceeded with, when Mr. J. E. Peele was unanimously elected as President, but as he was not present he was communicated with by telegram, but, while thanking the Association for the honour, declined to take office.

The following were then elected:—President, W. Awde, F.R.C.V.S.; Vice-Presidents, F. R. Stevens, M.R.C.V.S., and P. Snaith, M.R.C.V.S.; Treasurer, G. E. Nash, M.R.C.V.S.; Secretary, W. Awde agreed to carry on the work with the aid of an assistant; Auditors, H. Gelsthorpe, M.R.C.V.S., and W. T. Briggs, M.R.C.V.S.

Messrs. F. R. Stevens and W. Awde were appointed a Sub-Committee to make arrangements for the annual dinner in September.

Mr. W. Newcombe Dobbing, M.R.C.V.S., was nominated, and Mr. W. A. Hancock, M.R.C.V.S., was duly elected a member of the Association.

The SECRETARY then introduced the subject of "Professional Advertising." He said that this subject had been prominently brought before the Association at the last meeting, owing to a member having resigned in consequence of another member advertising, as he considered, in an unprofessional way. He expressed his opinion that there were two kinds of advertising from a professional point of view—legitimate and illegitimate. He considered that it was legitimate, when commencing practice, to insert an advertisement in a local newspaper in the shape of a card, name, address, and qualification; also to issue a circular to horse and stock owners, informing them that he had commenced practice, and telling them where he could be found in case they required his services. He was also at liberty to put a brass plate on his door or premises. He could also allow his name to be put on the committee of a local show, and act as honorary veterinary surgeon, and in any other honourable way bring his name before the public.

An animated discussion followed, in which nearly all the members took part.

The general opinion seemed to be that advertising should be discountenanced as far as possible. It was felt that some uniform action should be observed—either that we, as a body, advertise, or that we do not advertise, preferably the latter.

The opinion was expressed that it was a matter to be dealt with by the Council, or in the shape of a resolution by the National Veterinary Association.

The members then had tea together in the hotel.

MIDLAND COUNTIES VETERINARY MEDICAL ASSOCIATION.

A MEETING of the members of the Association was held at the Hopmarket Hotel, Worcester, on May 22nd, Mr. John Malcolm, President, in the chair. Those who also attended were:—Dr. Fleming, Messrs. Price, Stanley, Blakeway, Gibson, Paley, Dawes, Collett, Dr. Manley, Messrs. W. Carless, — Carless, Perrins, Pinkett, R. H. Cartwright, J. E. Cartwright, Beddard, Blunt, Over, Merrick, West, Coe, Butcher, Taylor, Pemberton, Chambers, Green, Gold, Crowhurst, Barling, Jones, Wiggins, Barnes, and F. Blakeway, Treasurer. Visitors:—Dr. Reid and Mr. T. W. Day, Sydney, New South Wales.

The SECRETARY read letters of apology from Professors Axe, Pritchard, Walley, Williams, Penberthy; from Sir H. Simpson, Messrs. Greaves, Barber, Olver, Burchnall, Wartnaby, Trigger, Smith, Freer, T. J. Merrick, etc.

The HON. SECRETARY read the minutes of the previous meeting.

On the motion of the PRESIDENT, seconded by Mr. BEDDARD, Mr. J. R. Green, of Alfreton, was elected a member; and

On the motion of Mr. BEDDARD, seconded by H. J. DAWES, Mr. C. J. Martin, of Chesterfield, was elected.

The PRESIDENT nominated, and Mr. BEDDARD seconded, Mr. F. B. Barling and Mr. Coe, jun.

The PRESIDENT moved that the next meeting be held on the 7th August instead of the 14th, in order to avoid the Congress of Hygiene in London, which would interfere with them considerably.

Mr. BEDDARD seconded, and the motion was carried.

The Inaugural Address was then delivered by the President, Mr. JOHN MALCOLM, F.R.C.V.S.:—

GENTLEMEN,—In assuming the Presidential chair of this Society for the current year, permit me to thank you most sincerely for the very great honour you have conferred upon me. When a large and powerful Association like this, numbering amongst its members and associates the very best names in

the profession, unanimously elects one of its number to preside, he may well feel gratified at such a mark of confidence. Believe me, I fully and justly appreciate the very kind spirit in which this expression of your esteem and goodwill has been conveyed, and I receive it with much gratification; but when I think of the many able men who have preceded me in this office, and the very high standard they have established, it is with diffidence I accept it. It will be no light task to follow in their footsteps, but in attempting it I am encouraged by the knowledge that I shall have the support of every member of the Association.

Our Society is generally acknowledged as one of the most harmoniously conducted veterinary societies in the kingdom. I trust it will always continue so. No jarring note has been struck at its meetings, and no personality intruded in debate. We agree to differ without disagreeing. However, there are degrees of comparison in our conception of unity, as in most other things.

All of us may not fully recognise the advantages of an ideal unity, and some may even see danger in it. It may honestly be believed that a more marked divergence of opinion might on some occasions lend greater zest and interest to our proceedings. With a body such as this, whose members are drawn from a wide area, and are representative of every class in the profession, there need be no apprehension about a want of diversity, indeed independence of judgment and freedom of thought are always apparent. However we may differ in opinion, each generously and freely recognises in others that sincerity of purpose, honesty of intention, and independence of judgment which he claims for himself.

It is soon recognised that here we meet on a common platform, before a tribunal capable of estimating our real merits. Scientific attainments, intellectual ability, earnestness and sincerity of purpose are the passports to its appreciation. Where these exist they are freely recognised, and such a recognition of their possession is not an inadequate compensation for any fancied injustice or injury received in the battle for existence. The elder members are taught to regard with far greater tolerance and complacency their younger struggling brethren, who may perchance be elbowing them for the prizes of the profession; while, on the other hand, the younger members are taught to realize and respect the greater practical experience of their elders, and, in doing so, any little jealousy or lingering sense of injustice that may have been engednered is speedily dissipated. This is only an insignificant portion of the good work done by our societies, but even this alone far more than justifies their existence. It is no wonder they multiply, and their membership increases. The only wonder to me is that every active member of the profession is not a member of one or other of them. Some old men who have done their work may ignore them, but no young man who means to keep abreast of the times, or in the van of his profession, can afford to do so. Nevertheless, we believe there are many good men who have no connection with any association, and many on the membership list who rarely attend the meetings. They are satisfied with the knowledge they possess, recognise no necessity for giving others the benefit of their experience, and seem never to have realised that one's own opinions and convictions gain infinitely in strength and sureness the moment another mind has approved them. If they did not ignore or forget the saying that "the thought is parent of the deed," they would be far readier to join with others at our meetings for the discussion of subjects of mutual interest. The most regular attenders are the first to admit the great benefit they derive by the reciprocal interchange of thought and observation at these discussions. By the action of one mind upon another, the whole mental vision becomes enlarged and corrected, new trains of thought are engendered and set in motion, the ultimate influence of which

it is impossible to estimate. After all, what nobler work can any one perform than the propagation of new thoughts; whatever incidents may subsequently occur, the beginning must always remain the most notable.

The Recent Election.

However, while many members still remain apathetic, a large majority are becoming alive to the sense of their duty. The multiplication of these societies, and their rapidly increasing membership, afford remarkable and convincing evidence of the widely extending interest now being taken by what may be termed the rank and file of the profession in all matters which affect it. Members are fast awakening to the fact that each individual has an interest at stake, and the voting at the last election very plainly indicates that the general body of the members mean to be the judges of what they deem necessary for its well-being. Not only were a larger number of votes recorded than usual, but they were given in such a markedly significant manner as to impress every one who has seen them.

On a matter of principle, several of the most popular and best men of the profession have been turned off the Council, and replaced by new and, comparatively speaking, unknown members, and that too by such overwhelming majorities as were never dreamt of; an average of 813 votes being recorded for the six newly-elected candidates against 345 for the five rejected. Significant as these figures are, they would have been in all probability still more marked but for the personal popularity and esteem in which the defeated candidates are universally held. At any rate, we know the personal question swayed many of our votes in the Midlands, and probably its effect was similar in other districts.

After this vote we trust the Council will see their way to fall in with the general wish, and give effect to the mandate so clearly given. It is when the reasonable and practicable are refused that men demand the unreasonable and the impracticable. Happily our leaders are far-seeing men, and will be the very first to accurately estimate this remarkable expression of opinion and its probable ultimate effect. If they are the wise men we take them for—men who possess the divine right of leadership in possessing superior wisdom—their efforts, instead of trying to stem the flowing tide, will be devoted to guiding it aright. But in whatever direction their energies may be cast, and on whatever points they may differ from the body of the profession, we are certain they will be influenced by no mean or personal view; on the contrary, we know they will be guided by that purity of motive, that honesty of intention, and singleness of purpose they have shown in their endeavour to promote the true welfare of the profession in the past.

In most addresses I have read or listened to, those dealing with general subjects, of whatever moment or interest, have seemed to me more or less unprofitable compared with those dealing with specific subjects upon which the speaker possessed some special knowledge, the result of his own study. The attractions of a specific over a general subject are to me very great, and it was some time before I could decide upon following the lines laid down by previous presidents. But a lecture by such an eminent authority as Dr. Fleming upon a specific scientific subject will no doubt replete the mental appetite of even the most exacting. Putting my own predilection on one side, I have decided in favour of precedent, and will simply treat of matters which may be deemed of general interest to the profession. There are many subjects I should have liked to touch upon—the result of the recent investigation into the efficacy of Koch's tuberculin; the prevention and extermination of the various specific infectious and contagious diseases; the working and effect of the recent Pleuro-pneumonia Act; or the necessity for veterinary

surgeons being officially recognised by Act of Parliament in conjunction with medical officers as inspectors of meat. Upon these and other subjects of absorbing interest I should have been glad of an opportunity of saying a word or two. But at the present moment a few remarks upon the proposed New Charter will no doubt be more acceptable to you than any other.

The New Charter.

We will at once premise it is no longer in doubt whether we shall have a New Charter—that is agreed to by all, and the question has now become, What shall the New Charter contain? Now is the time for discussing this, and it is only by members stating clearly and explicitly their views that the Council can recognise the wishes and desires of the profession on the various points at issue.

Some time ago the Council appointed a sub-Committee to specially consider the matter, and it submitted recommendations which, however, are still under consideration. Nevertheless, it will be no breach of confidence to say that, in addition to the three questions which have been so prominently before the profession, an endeavour will be made to include in any new Charter a pupilage clause, and provide for a registration fee and the election of Fellows other than by examination.

With reference to the first of the three questions, viz., the constitution of the Council, it is now unanimously conceded "that every member of the College shall be eligible to be elected as a member of Council." This is a mark of justice all will appreciate, and by its concession a right is restored and a grievance removed.

The settlement of the second question, viz., the election of Vice-Presidents, will probably also be in agreement with the general wish, and will result in the President and Vice-Presidents being selected from the elected members of Council.

In re-arranging the method of election for Vice-Presidents, it may not be amiss to consider the custom adopted by other corporate bodies. Municipal and other corporations select their aldermen from among their councilmen in a precisely similar manner to that now suggested for the election of our Vice-Presidents, but to the honour of election as alderman is added the privilege of an extended period of service, the time for which an alderman is elected being usually at least twice as long as that for a councilman. The advisability of following precedent in this respect is certainly worth consideration. Such a plan would provide for that stability of the Board and continuity in its administration which is requisite for good government, and it would ensure that the Vice-Presidents were the most experienced men in Council in place of the least experienced, as at present; and this would establish the position as a higher post of honour than Councilman, as it was meant to be and as it ought to be, instead of a lower one, as it undoubtedly is with the existing arrangements under which it is usually looked upon, either as a stepping stone to the Council Board or an asylum of refuge for defeated candidates. (*To be continued.*)

FELLOWSHIP EXAMINATION.

At a meeting of the Board of Examiners held in Edinburgh on May 28th, Mr. Thomas Bowhill, M.R.C.V.S., Darlington, passed the examination for this degree and was admitted a Fellow of the Royal College of Veterinary Surgeons.

R. Rutherford, F.R.C.V.S.
Secretary to Board of Examiners.

EXAMINATIONS OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

At a meeting of the Court of Examiners held in London on and between May 19th and 23rd, 1891, the following students from the Royal Veterinary College passed their Examination and were admitted members of the profession:—

Mr.	F. J. Boyle (Glasgow Veterinary College)	Ballymoney, Co. Antrim.
„	F. H. Potts	Cambridge.
„	F. B. Ditmas	National Club, S.W.
„	J. G. Stanley Clarke (Dick Veterinary College)	Brighton.
„	A. H. Jones	Abergavenny.
„	T. N. Davis	Oakely Square, N.W.
„	F. W. Garnett	Bowness-on-Windermere.
„	T. W. W. Hindle	Tetbury, Gloucestershire.
„	H. W. Leech	West Croydon.
„	A. S. Westworth	Limehouse, E.
„	W. H. James	Frome, Somerset.
* „	T. A Ford	Antigua, West Indies.
„	W. W. Grasby	Daventry, Northamptonshire.
„	G. H. Williams	West Drayton.
„	C. R. Edmonds	Gt. Yarmouth, Norfolk.
„	G. J. Harvey	Davenport.
„	J. W. Reynolds	Eisgrub, Moravia, Austria.
„	W. R. Mills	South Croydon.
„	A. England	Leeds.
„	F. W. Wilson	Berkhampsted.
„	A. E. Bayley	Camden Town, N.W.
„	H. Sessions	Gloucester.
„	F. B. Eve	Louth, Lincolnshire.
„	C. C. Abram	New Walsingham.
„	J. H. Manton	Donington.
„	H. B. Knight	These have not yet complied with the rules of the College.
* „	P. Perkins	
„	S. E. Shacklock	
„	W. A. Stanway	
* „	W. N. Dobbings	
„	M. T. Sadler	

The following students passed their Second Examination:—

Mr. G. Pomery.
„ H. F. West.
„ E. A. Prudames.
„ A. G. Grist.
„ H. E. Passmore.
„ T. H. Ward.
* „ F. W. Thompson.
* „ J. W. Lamb.
„ W. F. Widden.
„ F. F. Hornby.
„ E. G. Robertson.
„ F. W. Hunt.
* „ W. Stapley.

Mr. A. L. Wilson.
„ G. A. Hewitt.
„ T. W. Lloyd.
„ W. James.
„ H. G. Westgate.
* „ W. T. Broad.
* „ J. B. Young.
* „ A. Blake.
„ J. J. Parkinson.
„ E. T. Pearce.
„ J. W. Pritchard.
* „ C. J. Reakes.
„ H. T. Tidey.

Mr. W. F. Maynard.
* „ S. S. Broad.
„ A. E. Batt.
„ H. S. Leonard.
„ E. M. Dixon.
„ J. T. Priestner.
Mr. F. L. Clunes.
„ H. F. Downe.
* „ H. W. Dollar.
„ R. Youngs.
„ R. F. Ring.

The following students passed their First Examination:—

Mr. A. A. Ewin.
„ G. R. Stallard.
„ T. B. Bindloss.
„ F. J. Thornton.
† „ H. H. Whitlamsmith.
* „ G. P. Hollings.
„ C. Beadnell.
„ R. Shepherd.
„ T. W. G. Hodgins.
„ J. O'Rourke.
* „ F. U. Carr.
„ A. H. Towne.
„ H. Custance.
„ S. L. Stephens.
† „ A. C. Wilson.
„ F. B. Lowe.
„ R. J. G. Voisin.
„ F. Wooff.
* „ A. H. Job.
* „ B. Franklin.
Mr. W. Newman.
„ A. H. Stroud.
„ J. F. Carter.
„ H. J. Parkyn.
* „ F. W. Carless.
„ W. Fyrth.
„ H. Mason.
* „ G. K. Walker.
„ G. N. Tomlinson.
„ F. F. G. White.
„ T. F. Brain.
„ C. Crowhurst.
„ P. J. Harris.
„ E. E. Seldon.
* „ C. H. Dalacherois.
„ T. McC. Hunt.
„ G. H. Parr.
„ H. W. Davie.
† „ H. W. Billinghurst.

ARTHUR W. HILL, *Secretary.*

At meetings of the Board of Examiners held in Edinburgh and Glasgow on and between May 25th and June 2nd, the following gentlemen passed their final examination and were admitted Members of the Royal College of Veterinary Surgeons.

Glasgow Veterinary College.

Mr.	J. Abbott	Leytonstone, Essex.
„	W. Ledger	Lisnaskea, Fermanagh.
„	J. A. Jordan	Belfast.
„	S. C. Pottie	Sydney, N.S.W.
„	C. Seely	Lincoln.
„	W. H. Wilkinson	Flint.

Dick College.

Mr.	G. Best	Malton, Yorkshire.
„	A. Burnfield	Stanley, Perthshire.
* „	J. R. Crone	Newcastle.
„	T. Condon	Limerick.
„	C. Carrick	Limerick.
„	G. F. Ferguson	Gateshead.
„	J. Garvie	Kinclaven, Perthshire.
„	J. Henderson	Edinburgh.
„	J. W. Hewson	Wigton.
„	A. Johnstone	Aberdeen.
„	J. W. Nolans	Ballycanew, Wexford.
„	A. Pottie	Paisley.
„	W. Pye	Wolverhampton.
„	W. Sturdy	Skellingthorpe, Lincoln.

New College.

Mr.	L. Brown	Coleraine, Derry.
„	W. Bushnell	Abergele.
„	R. Eaglesham	Inveresk, Edinburgh.
„	C. Haywood	Twycross, Leicester.
„	W. S. Lamount	Granshaw Mills, Down.
„	J. M. Maxwell	Kirkcubbin, Down.
„	H. E. Richardson	Hull.
„	W. Westgate.	
„	A. H. Spinks.	
„	E. Fern.	
„	D. Leonard.	

The following gentlemen passed their Second Examination :—

Dick College.

Mr. G. G. Ashe.
„ W. Blanshard.
„ R. Beilby.
„ T. Durie.
* „ P. J. Dardis.
„ W. J. Doyle.
* „ R. W. F. Cannery.
„ E. Griffiths.
„ C. Hey.
„ T. G. Heatley.
„ R. Hyde.
„ J. Jones.
„ P. Kearney.
„ J. Little.
Mr. F. McRoberts.
* „ A. McFarlane.
† „ C. R. Neale.
„ A. P. Ord.
* „ W. Robertson.
„ G. W. Sturgess.
„ P. L. Smith.
„ R. Stordy.
„ W. Scott.
„ S. R. Tufts.
„ F. W. Taylor.
„ T. H. R. Threlkeld.
„ A. Walshe.

New College.

Mr. A. W. Anderton.
„ J. M. Arthur.
† „ O. C. Bradley.
„ A. T. Copeland.
„ W. O. Dawson.
„ G. Ellis.
„ J. A. Evans.
„ A. P. Gribbins.
* Mr. G. B. Holden.
„ T. B. Pearson.
„ H. Percival.
„ C. S. Smith.
„ E. H. Stent.
„ G. M. Williams.
„ E. E. Wood.

Glasgow College.

Mr. D. Hamilton.
„ R. Aitkenhead.
„ R. Ward.
„ W. D. Robertson.
„ W. Crowley.
„ D. Lochead.
„ W. Galloway.
„ H. McConnell.
†Mr. A. Crabb.
„ D. Stewart.
„ A. Jackson.
„ J. Furniss.
† „ A. McNairn.
* „ W. Dawson.
* „ G. Stewart.
* „ G. Irvine.

The following gentlemen passed their First Examination :

Dick College.

Mr. R. J. Ashby.
„ A. J. Beckett.
„ E. J. Bolton.
„ D. C. Campbell.
Mr. P. Maher.
„ J. S. Mellish.
„ J. Miller.
* „ R. McGregor.

Mr. E. J. Conroy.
„ R. Dickie.
* „ W. E. Elkins.
* „ H. Flood.
† „ J. Grant.
† „ G. Green.
* „ J. Harry.
„ R. Henderson.
* „ W. T. Hewitson.
„ H. C. Jagger.
„ F. A. Johnstone.
„ T. Kyffin.
* „ J. Laverty.
† „ J. W. Lazenby.
* „ G. W. Lee.
* „ W. McPherson.
* „ J. A. Mathieson.

Mr. C. Neill.
„ C. E. Norgate.
* „ O. A. O'Neil.
„ R. W. Paley.
„ H. O. Purves.
„ J. H. Pierse.
„ A. Panton.
„ W. Robertson.
„ C. M. Roche.
„ R. W. Russell.
„ J. P. Slidders.
† „ J. D. Stewart.
„ A. Trotter.
* „ J. J. Vahey.
„ G. Waugh.
† „ P. Wilson.
„ J. H. White.

New College.

Mr. O. T. Archer.
„ J. R. Baillie.
* „ H. G. Bowes.
„ F. Douthwaite.
„ H. B. Elliott.
† „ L. J. Farr.
„ J. E. Gibson.
„ J. H. Gillespie.
„ F. W. Hall.
* „ J. R. Hamilton.
* „ M. Hutchinson.

* Mr. M. F. Lynch.
„ W. S. Malone.
* „ T. R. Mulcahy.
* „ T. O'Donnell.
„ R. Peech.
„ J. J. Scott.
„ F. H. Shore.
„ H. W. Southall.
† „ F. W. Smith.
„ Toone, R.V.C. London.

Glasgow College.

Mr. R. Margrave.
„ J. Magee.
„ A. Walls.
* „ H. O. Boyle.
„ H. McCartney.
„ S. B. Clode.
* „ A. McDougall.

† Mr. J. Paton.
† „ J. Steel.
* „ J. Kerrigan.
„ H. Davies.
† „ R. Moore.
† „ D. Stirling.

Marked thus * passed with great credit.
„ „ † „ „ very great credit.

R. RUTHERFORD, F.R.C.V.S.
Secretary to Board of Examiners.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

THE monthly meeting was held on June 3rd, when Sir JOHN THOROLD stated that Mr. Cope had presented the following report; and a Parliamentary return, showing the number of outbreaks of Swine Fever during the past three years had been laid upon the table:—

"*Pleuro-pneumonia.*—During the four weeks ended May 23rd, outbreaks of this disease were dealt with by the Board of Agriculture in seven counties in England and two in Scotland, viz., Kent, Lancaster, Middlesex, Northampton, Northumberland, York (N.R.), York (W.R.), Aberdeen, and Midlothian. In these counties ninety cattle affected with the disease were slaughtered, sixty-six in England and twenty-four in Scotland; in addition to these 538 healthy cattle, which had been exposed to the risk of infection, were slaughtered, 356 of these were in England and 182 in Scotland.

There were during the four weeks fourteen cattle slaughtered which were suspected of being affected with Pleuro-pneumonia, but which were found, on post-mortem examination, to be free from that disease.

For the corresponding period of last year, there were forty-one fresh outbreaks, in which 176 diseased and 804 healthy cattle were slaughtered by the local authorities.

The following table shows the number of outbreaks of this disease, with the number of animals killed between the 1st September, 1890, when the Pleuro-pneunomia Act came into operation, and the 23rd of May last, as compared with the corresponding period for the years 1889-90:—

	1890-91	1889-90
Outbreaks	217	269
Diseased cattle slaughtered	834	1,192
Healthy cattle in contact slaughtered ..	8,012	4,083

In addition to the 8,012 healthy contact cattle slaughtered in 1890-91, 153 cattle suspected of being affected with the disease were also slaughtered, but found to be free from it, although affected with other diseases.

Anthrax.—During the four weeks fourteen outbreaks of Anthrax were reported in Great Britain, in the counties of Berks, Bucks, Essex, Kent, Lancaster, Leicester, Lincoln (Kesteven), Lincoln (Lindsey), Northumberland, Suffolk, York (W. R.), Aberdeen and Midlothian. In these outbreaks sixty-five animals were attacked, nine of which were killed, forty-one died, five recovered, and thirteen remained alive diseased when the last return was made up.

Swine Fever.—This disease continues to increase in Great Britain. There were 688 fresh outbreaks reported in the four weeks, as compared with 568 in the preceding four weeks; 4,038 swine were attacked, 2,004, or less than half these diseased pigs, were killed, 1,587 died, 226 recovered, and 744 remained alive diseased when the return was made up.

Rabies.—There were eight cases of rabies in dogs reported, viz., one in Lancaster, one in London, one in Middlesex, one in Somerset, and four in York (W. R.)."

Considerable discussion had taken place upon the recent large increase in the number of outbreaks of Swine Fever, and it had been agreed to submit the following resolution for adoption by the Council:—

"Seeing that Swine Fever is largely on the increase, and that the measures at present in force are inadequate to check, much less suppress it, the Council would earnestly direct the attention of the Board of Agriculture to the urgent necessity of adopting more stringent measures to mitigate the severity of this disease."

The attention of the Committee had been drawn to a communication addressed by the Highland and Agricultural Society of Scotland to the Board of Agriculture as to the exhibition in England and Scotland of cattle exhibited at the Royal Dublin Society's Show held at Dublin last March, within, or in close proximity to, a district scheduled under the Pleuro-pneumonia order. The Committee were of opinion that no animals which were now in, or which had been exhibited in, a scheduled district should be admitted to the Royal Agricultural Society's Show at Doncaster, and that if any such animals had been entered, their owners should be informed of this resolution, the entries cancelled, and the fees returned.

The Committee recommended the appointment of Mr. D. M. Storrar, of Abergavenny, as the Society's provincial Veterinary surgeon for Monmouthshire, in succession to Mr. Lewis, resigned.

A letter had been read from Sir Joseph Lister, President of the British Institute of Preventive Medicine, seeking the Society's support in an applica-

tion to the Board of Trade for a licence to the Institute enabling them, as a "charitable institution not working for profit," to omit the word "limited" from their proposed title, and asking that the President and Council of the Society might be officially represented at a deputation in support of the application which was appointed to wait upon Sir Michael Hicks-Beach on the 5th instant. The Committee recommended that the Secretary be instructed to express the approval of the Council in the object of the application made by the Institute, but that they were not able to take part in the proposed deputation.

Mr. DENT, with reference to the proposed resolution as to swine fever, said the question was whether the Council were prepared to make any definite recommendations to the Board of Agriculture on the subject. There was a very general feeling in the Veterinary Committee on the previous day that if any more was going to be done, some far more stringent measures should be adopted than were in force at the present time. There was a strong feeling amongst those who had anything to do with the subject practically that they should stop for some considerable period throughout the United Kingdom all markets for swine. There was no doubt that the disease was principally contracted by animals being taken to markets which could not well be cleaned, and which were always more or less centres of infection. In addition to that they must carry out a more stringent law of slaughter and compensation. In certain districts of the West Riding of Yorkshire every collier had a pig, and in the neighbourhoods of Sheffield, Barnsley, and Ripon the disease was always more or less existing in the pigstyes of the colliers—places very ill-adapted to the keeping of swine. But he questioned whether even if they resorted to slaughter they would ever thoroughly eradicate or stamp out the disease in localities of the kind. Looking to the little impression made upon the disease and the carelessness and recklessness of pig owners and pig dealers, and people connected with the trade, he should be inclined rather to strike the disease out of Contagious Diseases (Animals) Act altogether, and let proprietors of pigs take their own risk. There would always be more or less disease amongst pigs whilst they had the law unequally administered in different parts of the country. The visit of the veterinary surgeons and the inspection of the districts were a very serious inconvenience to the pig trade. Farmers at this moment would tell them that pigs were worth nothing, and that they were almost unsaleable. If they were really prepared to go to the Board of Agriculture and say they must go to the root of the evil and adopt these more stringent regulations in the way of keeping of pigs, they would have a serious outcry all over the country, and he could not support such a resolution. He should feel much more inclined to strike Swine Fever altogether out of the list of contagious diseases.

Sir NIGEL KINGSCOTE could not at all agree with Mr. Dent. Everyone admitted that Swine Fever was becoming a serious scourge. If they gave compensation they got more Swine Fever than really existed. He did not think that the Council should express an opinion beyond saying that more stringent regulations should be adopted. But it was his own very strong view that it would be a very great step towards getting rid of the disease if, as Mr. Dent said in the first part of his remarks, all fairs and markets for pigs were stopped for a certain period. At the present moment his experience was that in markets where auctions were held once a fortnight, or once a month on turf, cobbles, or stones, the dirt between them could not be cleansed away, and those places could not be properly disinfected, and therefore the disease kept breaking out from time to time. He thought the Council would do well to call the attention of the Board of Agriculture by a general resolution, and he hoped that the remarks made there would reach the ears of the Minister

of Agriculture, in order that he might see how to deal with the question. The responsibility lay with the Board of Agriculture.

Mr. BOWEN JONES was disposed to think that it was premature to ask the Board to take action, because unless they imposed the most stringent measures they would not produce any effect at all upon the disease. It was well known to the Council that the Board of Agriculture had in hand the question of the extermination of Pleuro-pneumonia, and in his opinion that was quite as much as they could thoroughly accomplish at the present time. When the disease was extirpated—as he had no doubt it would be under the present system of management of the Board of Agriculture—he thought Swine Fever might be taken in hand, but till then he did not believe that the Board would be able to cope with the two diseases. Nothing short of the stoppage of fairs and markets throughout the kingdom, and slaughter with compensation from the Imperial exchequer, would enable them to combat Swine Fever any more than Pleuro-pneumonia. He, therefore, thought it rather premature to approach the Board except in general terms. He wished it to be distinctly understood that he only offered these observations on the general ground that he thought it was not the opportune time to ask the Board to deal with the question. If the terms of the resolution only called the attention of the Board to the matter in a general way, he did not object to its adoption.

Mr. HOWARD said Mr. Dent was quite correct in stating that the stoppage of fairs and markets would very much interfere with practical business throughout the country and that it would be unpopular. It appeared to him desirable that the county authorities should take this matter up. They had tried it in Bedfordshire, and had not given any compensation for some time past. At that moment they were free from Swine Fever. There was a very prevalent impression amongst farmers and practical men that a great many cases reported were not Swine Fever at all. He did not mean to say that because they stopped compensation that that had had the effect of stopping Swine Fever, but it made owners more particular as to the way in which they kept their pigs, instead of allowing them to wallow in filth and dirt, which was a certain and prolific source of the disease.

Mr. Martin quite endorsed what had been said by Mr. Howard so far as the Isle of Ely was concerned. They did not pay compensation, and they had not one case of the disease.

After some further discussion the resolution of the Veterinary Committee in regard to Swine Fever was carried by sixteen votes to three.

Mr. JOHN THOROLD then explained the recommendation of the Veterinary Committee in regard to the proposed exclusion from the Doncaster Show of animals exhibited at the Royal Dublin Society's Show last March. There was no doubt that, if this had been a scheduled district in England, the animals would not have been permitted to go to their show, because the Board of Agriculture had expressly declined to give a licence for the removal of any animals from those districts. But the Privy Council in Ireland were independent of the Board of Agriculture in England, and they had given those animals a licence to enter the scheduled district and go back again to England. The Veterinary Committee thought that the Council should mark their feeling that it was extremely undesirable to admit to the show any animals from any district which had been scheduled for Pleuro-pneumonia, and, therefore, they proposed that resolution.

Mr. HOWARD pointed out that the animals referred to were now being exhibited throughout the country. The question was whether the Royal Agricultural Society would do what other societies had not done. It appeared to him that the mischief, if any, had already been done, and that it was now too late for the Society to take action in the matter.

Mr. DENT said the matter came before the Veterinary Committee upon a letter received from the Highland Society, with a copy of their minute on this question. It certainly appeared to all the members of the Veterinary Committee that as that Council had been perpetually impressing upon the Board of Agriculture the necessity of dealing uniformly and stringently with Pleuro-pneumonia, and that the rules and regulations made should be applicable to every district, they would only be acting consistently in passing the resolution proposed. He understood that the Board of Agriculture had published an order called the Scheduled Districts Order, and that when they declared the district scheduled as a Pleuro-pneumonia district, no animal could move out of it unless for slaughter without a special licence. What he understood was that certain exhibitors of cattle sent into a scheduled district in Ireland, and that the authorities in Ireland gave these people certificates to enable them to remove their cattle back again to England. They had not sufficient information to know on what they based their certificate, but apparently the authorities considered it safe for those animals to go back again. The feeling of the Committee was that the Council having been so urgent in pressing upon the Board of Agriculture to deal uniformly and stringently in the matter, they ought not to encourage the exhibition by the Royal Agricultural Society of any animals that had been in a scheduled district in England or in Ireland. He agreed with Mr. Howard that in all probability there was not much danger from those animals, but their exhibition would be at least a legal infraction of the rules that had been laid down, and the question was whether they should in any way encourage what might be a relaxation of them.

Mr. TERRY remarked that supposing those animals had been in a scheduled district they had been shown at other shows, and they had been in contact with other animals that would be shown at the Royal and at other shows all over the country.

Sir JACOB WILSON said the two things were quite distinct. If other shows had already exhibited those animals that was no reason why they should do so and carry the disease further over the country than it might have been carried already. The fact of their carrying the resolution would have its full effect next year. Breeders of cattle would take very great care not to exhibit their cattle in a country which had different laws to their own, and in which they would run the risk of infection. He was very strongly in favour of passing the resolution, though it might not, as far as the disease was concerned, have effect this year. It would, however, be a most valuable caution next year.

Remarks having also been made by Mr. FOSTER and Lord MORETON.

The PRESIDENT, before putting the resolution, said he hoped and trusted that the Council would pass it for the sake of their own consistency. It was not fair that they should act with strictness in one matter and not in another.

The resolution was then put and carried, no one voting against it; and the report of the Veterinary Committee was then formally adopted.

Jurisprudence.

ON May 15th, in the Dublin Nisi Prius Court, before Mr. Justice O'Brien and a special jury, an action brought by Mr. Thomas Donovan *v.* Mr. Wm. Jones-Byrom, of the 3rd Hussars, came on for hearing. The plaintiff sought to recover £250, the price of a hunter. The defence was that the horse was not sold to defendant, but that if sold the sale was subject to the condition that the horse should be passed as sound by Mr. Healy, V.S. to the 3rd Hussars, and that he was not so passed. Mr. Byrom filed a counter claim

for £20 for the stabling and keep of the horse, and there was a second count for breach of warranty.

Council for plaintiff: The Solictor-General Mr. G. Wright, Q.C. and Mr. Seymour Bushe (instructed by Mr. Hayes).

For defendant: Messrs. R. Adams, Q.C.; D. B. Sullivan, Q.C., and P. D. Fleming (instructed by Mr. Bass).

The Solicitor-General, in stating the plaintiff's case, said it was not for the £250 that his client brought the action— it was more or less in vindication of himself from charges that had been made against him. The defendant was blessed with a large share of the world's wealth. He enjoyed an income of £10,000 a year, but he was no fool about his money. What the jury would have to try was whether Mr. Healy passed the horse or not. There could be no controversy about the fact that the horse had a corn, but a corn, though technically an unsoundness, practically was not. There was a previous trial of this case, and they had the evidence of Mr. Healy, and he presumed Mr. Healy would give the same evidence on the present trial.

Mr. Donovan was then examined by Mr. Wright, Q.C., and he gave evidence to the effect that he bought the horse at the last Ballinasloe October fair for £150, and that he hunted him regularly afterwards till January 23rd last, when at a hunt Mr. Byrom bought him from him for £250. He (plaintiff) met Mr. Byrom at the hunt two or three times that day. He happened to have the good luck of finishing first, but he did not think after all that it was good luck, seeing that it brought him into trouble. In the evening Mr. Byrom asked him would he sell him the horse, but he (plaintiff) said "No." Subsequently he said he would sell him for £250 but that if Mr. Byrom allowed him to finish the season with him he would take £50 less. Mr. Byrom asked him did he think he was a fool, and said that he wanted to ride the horse himself, and that he was buying him for the point-to-point race. The plaintiff in further evidence stated that the horse was seven years old, and that he had previously been hunted by Mr. Persse. Mr. Healy, V.S., examined the horse in the barracks at Ballincollig. Mr. Byrom was going to hunt at the time, and plaintiff asked him to remain while the examination was taking place, but defendant said he could not; Mr. Healy could examine the horse. Mr. Healy then proceeded with the examination, and looked at the horse's eyes, and had him trotted on the paved yard. He passed his hand along his legs, and examined his hoofs. He said he thought the horse was tightly shod. The horse was then galloped in the camp field, and Mr. Healy said that the horse was particularly sound in his wind. The horse was also ridden up against a wall, and an appearance of striking him was made and the horse did not grunt. The horse was then taken to Mr. Byrom's stable. Mr. Healy said to plaintiff that he was all right, and that he thought Mr. Byrom would win the point-to-point race with him. Witness was not aware at the time he sold the horse that the animal had corns, but when he afterwards heard that he had, he inquired of the smith who shod him, and the smith told him that he had. A corn might be a serious thing if the horse were lame with it, but the corn in this case was trivial. He had frequently sold hunters to the 3rd Hussars, and Mr. Healy never examined them for corns. On the 31st January, he (plaintiff) received a letter from Mr. Byrom saying that Mr. Healy and he would see him about the horse the following day. They did not come, but on the 2nd of February he got a letter from Mr. Healy saying that Mr. Byrom would send back the horse the following day, that he was lame when he was brought to Ballincollig, and that he (Mr. Healy) told him so at the time. That was not true. Mr. Healy never said at Ballincollig that the horse was lame. He (plaintiff) said that he was surprised at Mr. Healy falsifying himself, and that it was the money and not the horse he wanted. A few days afterwards he received a letter from Mr. Byrom

saying that if he refused to take the horse he would put it in livery at his expense in Conway's yard. The horse was sent to Conway's yard. On the 7th of February he met defendant at a hunt and said he wanted to speak to him about the grey horse. Defendant replied that he did not want to speak to him. The same evening he (plaintiff) wrote, offering to submit the matter to arbitration or leave it to Major Alexander, of his own regiment. He received no reply whatever to that letter.

On cross-examination by Mr. Adams, Q.C., Mr. Donovan said that the horse was sold subject to the condition that he should be passed by Mr. Healy. He (plaintiff) knew that the horse had the near fore-joint a little enlarged. If he were a veterinary surgeon examining the horse he would have passed him as sound. He considered a horse would be technically unsound if he had a corn or the slightest blemish. The horse when sold was technically unsound, but practically quite sound. He said nothing at the previous trial in Cork about Mr. Healy saying at the examination that Mr. Byrom would want to hunt him at Inniscarra the day after. Mr. Healy said, "This horse has not had a walk-over for his living."

The Solicitor-General: That only means that he has been worked. I have not a walk-over for my own living.

Mr. Adams: You are not a "crock" at all events.

Plaintiff, on further examination, said that Mr. Healy never said, "No wonder the poor beggar was a cripple." He never said the horse was lame, and he could not pass him; the word "lameness" was never mentioned, nor was there any mention about unsoundness. Witness did not say "It is the way he is shod." He said to the smith when the horse was being shod for himself to shoe him tight, as he would rather the horse would lose a hoof in a hunt than that a shoe would come off. He did not say to Mr. Healy, with reference to the shoes, "This is the way I am treated. No one looks after my business. I am the worst treated man in Cork." He knew Mr. Healy at the former trial swore to this conversation. No such conversation took place. He knew Mr. Byrom was not at the Inniscarra meet the next day. He heard that on the previous night Mr. Byrom was suddenly appointed for duty, and that, therefore, he could not go to the hunt. Before the trial in Cork he spoke to Conway, Mr. Byrom's groom. He did not say to him, "Did you hear Mr. Healy say the horse was all right?" neither did Conway reply, "No; it was you who told me the horse was all right."

James Hayes, a groom in the employment of the plaintiff, examined by Mr. Bushe, said it was he who took the horse on the 27th January from Mr. Donovan's house to the barracks at Ballincollig; it was a distance of five miles. Mr. Healy examined the horse in the barrack yard; he (Mr Healy) made some remarks about the horse's shoes, but he did not notice what the remarks were.

On cross-examination by Mr. Sullivan, Q.C., witness said that the week before the sale the horse was kept in stables in the city of Cork. There was nothing wrong with his shoes when he was brought to Ballincollig. He did not, a few days before, refuse to allow the defendant and Mr. Healy to examine the horse, for they did not request it, as Mr. Donovan was away. Nothing was being done to the horse as Mr. Byrom entered the door. His forelegs were not being rubbed. He heard Mr. Healy saying at the examination of the horse that he wanted to be shod.

The plaintiff's case having closed,

Mr. Adams, Q.C., opened the case for the defendant. The plaintiff, he said, did not care for the price of the horse, nor for the costs of this action—all he wanted was that he should beat Jones-Byrom. Mr. Donovan was a most determined man, and whether in a race, a hunt, or in a law suit, he always liked to be first past the post.

Mr. Jones-Byrom, the defendant, examined by Mr. Sullivan, Q.C., said that in January last he returned from America, and was short of horses. He heard about this grey horse. On the 24th of January, when returning from the hunt, he asked Mr. Donovan what price he would take for the grey. Mr. Donovan said £250, and he (defendant) said he would take him on condition that he was passed by Mr. Healy. On the Monday following he (defendant), his groom, and Mr. Healy went to Donovan's stables in Cork to examine the horse, but Hayes would not allow them to examine the horse, as his master was out hunting. On the 27th the horse was brought to Ballincollig to be examined. The meet at Inniscarra was on the following day. He was not at the meet. He was orderly officer that day, doing duty for a brother officer. On the day of the examination, when defendant returned from the hunt, the horse was jogged across the road and he was quite lame. He had been newly shod at the time. On the next day he was on duty all day and could not see Mr. Donovan. He was hunting the next day, but Mr. Donovan did not attend the meet. On the day after he went out with Mr. Donovan's hounds, a thing he had never done before, solely for the purpose of seeing Mr. Donovan. He met Mr. Donovan, and said the horse had not been passed sound by Mr. Healy. Mr. Donovan replied that Mr. Healy had passed him sound to him (plaintiff), and that he would take notice of nothing else. The horse was at present in Conway's yard in Cork. So far as he (defendant) was aware Mr. Healy never passed the horse.

On cross-examination by Mr. Wright, Q.C., Mr. Byrom said that he never stated he wanted the horse for the point-to-point race—at least he had no recollection of it. He would have been glad to have got the horse if he were passed. When the horse was being examined Donovan did not press him to stay. He simply said, "You may as well wait for a while—I am going hunting, too." He did not know he would be going orderly the following day until the evening before. He knew that the horse was in his stable for four days without being passed. He did not communicate with Mr. Donovan during that time, although he had four grooms; he wished to see Mr. Donovan rather than write, as he was on very friendly terms with him.

Major Michael Healy, veterinary surgeon, 3rd Hussars, examined by Mr. Adams, said he had twenty-seven years' service. When he and Mr. Byrom went to Donovan's yard on the first occasion to examine the horse he saw the animal in a box stall; a man was on his knees beside him putting wet bandages to his legs. Witness examined the horse in the barrack yard in Ballincollig en the 27th of January; he found a thickening of the fetlock on the near foreleg, there was also an enlargement on the other foreleg. He got a groom to trot the horse, and found he was lame; he then picked up the foot, and it appeared as if the shoe had been on a long time. He said to Mr. Donovan, "No wonder the poor beggar is a cripple." Mr. Donovan replied, "That's just like Donovan's yard; I'm the worst treated man in Cork." After the horse had been galloped in the camp field he told the groom to put him into No. 6 box to let him cool down for a while, and to see whether he would be better or worse. When he tried him the second time he was decidedly lame. After that he tried his sight, which was all right. Donovan then asked him was the horse all right, and he replied, "No, he has got an enlargement of both suspensory ligaments, and he is lame." Mr. Donovan said, "Oh, he'll be all right as soon as you shoe him yourself." Mr. Donovan said he could not wait for the shoeing, and that he would leave him in his (witness's) hands. He then went away. He did not pass the horse as sound and did not tell Mr. Donovan he was sound. He saw the horse after he had been shod, and he was still lame. He examined the hoofs and found a bad corn on the near fore and a small corn on the off-fore. The horse was properly and skilfully shod. He never at any time said the horse was sound.

On cross-examination, Major Healy said that wet bandages were usually not put on a horse's legs unless there was something wrong. When he found the horse unsound, the reason he did not say to Mr. Donovan that he would not pass him was that he did not know but Mr. Byrom would buy the horse with part of his unsoundness. He was not bound to tell Mr. Donovan anything. It was for Mr. Byrom he was examining the horse. He told Mr. Byrom next morning to send back the horse, that he would be no use to him. The horse was examined on the 6th February by Mr. Peard and some other veterinary surgeons. He did not speak to Mr. Peard about it previous to that.

Cornelius Conway, a groom in Mr. Byrom's service, was examined in corroboration of the last witness's evidence as to what occurred at the examination of the horse and subsequently. Previous to the trial in Cork he was passing Mr. Donovan's yard and Mr. Donovan called him and asked him did he not hear Mr. Healy say that the horse was all right. Witness said that he did not. Mr. Donovan then said he did not hear it either, but that his man did.

On examination by Mr. Bushe, he said that he did not say anything about this at the Cork trial, though he heard Mr. Donovan swear that Mr. Healy said the horse was all right.

To Mr. Sullivan: He was not asked about it at the trial.

Sergeant Farrier Abraham, of the 3rd Hussars, deposed that he shod the horse on the 27th of January, and that he found the shoes buried into the hoofs. The shoes were too short, and he put on longer ones. The shoes he took off must have been on for two months, which was too long a time. He found the horse suffering from corns, and resting one of his forelegs as if suffering from some disease in that limb.

In reply to the Solicitor-General, he said that a horse might go lame after being newly shod.

Mr. James Preston, V.S., Mallow, was called.

The Solicitor-General objected to the evidence on the ground that it was irrelevant, that the question was not whether the horse was sound, but whether Mr. Healy gave the opinion or not that he was sound.

Mr. Justice O'Brien said he would allow the evidence.

Mr. Preston was recalled. He stated that he examined the horse on the 6th of February and found that he was lame, suffering from suspensory ligaments.

Mr. D. B. Sullivan addressed the jury on behalf of the defendant.

Mr. George Wright, Q.C., replied on behalf of the plaintiff.

Mr. Justice O'Brien, in charging the jury, said a person coming into court while some cases were being tried would be apt to come to the conclusion that the question which was being tried was whether the plaintiff or the defendant was rich or poor. An appeal to them (the jury) of that kind was an appeal to them to do something in violation of their duty. Their duty was to find a verdict according to the evidence. Referring to the offer of the plaintiff to leave the matter to arbitration or to Major Alexander, his lordship said he could not say that the defendant was ill-advised in refusing to accept that offer, and in resolving to submit whatever rights he thought he had to a court of law. Two views of the case had been presented—two opposite views. One view was that this horse was sold subject to the condition that he should be passed by the veterinary surgeon of Mr Byrom's regiment, and he was so passed; and that not only Mr. Byrom, who was not so much concerned in this part of the matter, but Mr. Healy, who had examined the horse, having made a mistake, had found that he had made that mistake in a matter connected with his own professional experience; and that to shield himself from the consequences he had sworn falsely that he had never passed the horse. The other view was that the horse had not been passed, and that not only was the horse unsound, but that Mr. Donovan knew he was unsound. The contract was undoubtedly that the horse should be passed sound by Mr.

Healy. A question might arise as to the exact meaning of those words. His lordship then reviewed the evidence at length, observing that the jury would have to form their opinion upon probabilities and upon motives, and upon the position of the parties, in order to arrive at the conclusion which of the witnesses they should believe. There was no possibility of reconciling the statements.

The jury found that the horse was not passed sound by Mr. Healy.

The Foreman said: We wish to append the following to our verdict—"We unanimously are of opinion that Donovan was justified in believing that the horse was sold."

Judgment was then given for the defendant in the action; and also for fourteen guineas on the counter claim.

Parliamentary Intelligence.

House of Commons, June 12th.

ARMY VETERINARY DEPARTMENT.

Major RASCH asked the Secretary of State for War whether he would be prepared to extend the substantive rank (medical officers) to the members of the Veterinary Staff.

Mr. E. STANHOPE:—Yes, sir, this will necessarily follow the grant of combatant titles to medical officers.

PLEURO-PNEUMONIA.

In reply to Sir J. Pease,

Mr. CHAPLIN said:—From September 1st, 1890, to May 31st, 1891, 216 outbreaks of Pleuro-pneumonia were dealt with by the Board of Agriculture; 892 diseased cattle and 8,820 healthy cattle were slaughtered. The amount of compensation paid was £150,488 1s. 8d., and the amount of salvage received was £60,146 4s. 9d.

June 20th.

SWINE FEVER.

Mr. CHAPLIN, replying to Mr. Fellowes, said experience seemed to show that nothing short of an order absolutely closing all markets for the sale of swine would have any substantial effect in dealing with the disease, and he doubted very much whether such a step could be adopted in view of the great inconvenience it would produce at this season.

Army Veterinary Department.

Gazette, June 2nd.

A. S. Trydell, Gent., to be Veterinary Surgeon (ranking as Lieutenant), in succession to Veterinaay Surgeon, First Class, J. H. Cox, deceased.

In the *Gazette* announcing the Queen's birthday honours, it is gratifying to observe that Principal Veterinary Surgeon J. D. Lambert received the Companionship of the Bath; and Captain Beech, 19th Hussars, late of the Department, had the Distinguished Service Order conferred upon him.

Gazette, June 9th.

2ND LIFE GUARDS.—Veterinary Surgeon, First Glass, A. A. Jones is placed on retired pay, on account of ill-health.

Harold P. Turnbull, Gent., to be Veterinary Surgeon (ranking as Lieutenant), in succession to Veterinary Surgeon A. A. Jones, 2nd Life Guards, retired.

At the Levée held at St. James's Palace on June 5th, by the Prince of Wales, J. D. Lambert, C.B., Principal Veterinary Surgeon, was presented by the Commander-in-Chief. The following officers of the Department were presented by the Principal Veterinary Surgeon:—J. Cooper, B. L. Glover, A. Meredith, B. A. W. Powell, E. W. Wilkinson.

The Annual Dinner of the Department took place on June 12th, when there were present Principal Veterinary Surgeon J. D. Lambert, C.B. (in the chair), Dr. Fleming, C.B., W. Pallin, Walters, Duck, Killick, Flintoff, Burton, Cooper, Bennett, Meredith, Raymond, Dibbin, Hammond, Gibbs, Rutherford, Edwards, Matthews, Kettle, J. Reilly, Lees, F. Smith, A. Jones, J. W. Evans, Cooper, Harris, Wilkinson, Trydell.

Obituary.

The following deaths have been reported:—

W. Ward, M.R.C.V.S., Manchester	graduated in	1885.
J. Gillespie, M.R.C.V.S., Smithfield, London	„ „	1871.
A. Perkins, M.R.C.V.S., London.....	„ „	1889.
J. Varney, M.R.C.V.S., Winslow, Bucks	„ „	1881.
C. Groves, M.R.C.V.S., Wareham	„ „	1868.

Notes and News.

Climate and Constitution.—In an article upon California in a recent issue of *Harper's Magazine*, Mr. Charles Dudney Warner writes:—"In reading the accounts of early days in California, I am struck with the endurance of hardship, exposure, and wounds by the natives and the adventurers, the rancheros, horsemen, herdsmen, the descendants of soldiers, and the Indians, their insensibility to fatigue, and their agility and strength. This is ascribed to the climate; and what is true of man is true of the native horse. His only rival in strength, endurance, speed, and intelligence is the Arabian. It was long supposed that this was racial, and that but for the smallness of the size of the native horse, crossing with it would improve the breed of the Eastern and Kentucky racers. But there was reluctance to cross the finely-proportioned Eastern horse with his diminutive Western brother. The importation and breeding of thorough-breds on this coast has led to the discovery that the desirable qualities of the Californian horse were not racial but climatic. The Eastern horse has been found to improve in size, compactness of muscle, in strength of limb, in wind, with a marked increase in power of endurance. The traveller here notices the fine horses and their excellent condition, and the power and endurance of those that have considerable age. The records made on Eastern race-courses by horses from California breeding farms have already attracted attention. It is also remarked that the Eastern horse is usually improved greatly by a sojourn of a season or two on this coast, and the plan of bringing eastern race-horses here for the winter is already adopted."

Koch's Tuberculin.—Some experiments lately made with Koch's lymph by Privy Councillor Damann and Herr Neergard, have proved that the method is not to be entirely depended upon as a diagnostic. Six cows were vaccinated, and in each case the temperature rose and fever set in; but on being slaughtered it was found that one out of the number was free from disease. Since his return to Berlin Professor Koch has been engaged on an attempt to produce tuberculin in a pure state, free from injurious substances, so that its quality may be chemically determined, like that of all other medicaments.

He hopes to complete this task in a few months. It is said that he will then publish the full details of the method of production.

CATTLE IN SPECTACLES.—At the suggestion of Dr. Verincourt, of the Department of Agriculture of Russia, says the *Optician*, a large number of farmers have had recourse to blue spectacles in order to preserve the sight of their herds of cattle, and in one province over 4,000 animals are now meandering about with the aid of blue glasses. This has been found necessary because the reflection of the light upon the snow has been so blinding that tens of thousands of cattle have been attacked with Ophthalmia. According to a recent despatch from Vienna, the entire supply of blue glass in Vienna has been exhausted for this purpose, and it has been found necessary to obtain additional supplies from Paris and London. A farmer who is now in Vienna, says that the sight of thousands of cattle groping their way through the snow with their eyes cased in immense goggles is one that can neither be imagined nor adequately described.

THE COW'S TAIL.—Every time a cow moves her tail to switch a fly she exerts a force of three pounds. In the course of the summer a single cow wastes 5,000,000 pounds of energy. The cows of America throw away power enough to move every piece of machinery in the world. This is exclusive of kicking milkmaids off stools.—*Detroit Free Press.*

EPIZOOTIC HÆMATURIA IN SOUTH AFRICA.—From Cape Town it is reported that "Red-water" now prevails throughout a great part of the north-eastern districts, *i.e.*, Queen's Town, Glen Grey, Aliwal North, Barkly East, and even as high as Herschel, in this colony. A very large number of deaths have occured in these areas, in some of which, moreover, the disease had not in former years manifested itself. On the other hand, in the Transkei, up to now a very hotbed of disease, there is this year a practical immunity from it, "nil" returns having been rendered from nearly all its districts.

PRESENTATION.—It is gratifying to learn that Mr. King, M.R.C.V.S., of Bournemouth, has been presented with a valuable microscope by the local Society for the Prevention of Cruelty to Animals, in recognition of sixteen years' services as honorary veterinary surgeon.

A PLAGUE OF FLIES.—The *Agricultural and Forestry Gazettee*, of Hanover says:—In the districts of Dannenenberg and Lüchow numbers of cattle died recently from what appeared to be an epidemic. Upon inspection it was found, however, that the cattle had been attacked by small black flies, found in the meadows after the inundations, especially in shady places. The flies attacked the animals on the head and other tender spots, death following instantaneously from suffocation.

TUBERCULOSIS IN SCHLESWIG-HOLSTEIN.—There were slaughtered at the public abattoir of Kiel, in the month of April, 1891, 68 oxen, 110 heavy bulls, 266 cows, 84 fat heifers, 67 light bulls under two years, 691 fat calves, 1,668 pigs, 362 sheep, 8 lambs, 6 goats, 666 calves, and 45 horses, making a total of 4,070 animals. Of these 1 bull, 6 cows, and 10 pigs were found to be tuberculous.

MICRO-ORGANISMS IN DISEASES OF PIGS.—Dr. Georg Caneva has made an attempt to classify the various organisms that have been described as giving rise to diseases of pigs in America, in Sweden, and in this country. He finds that they may be divided into three groups. The first of these he looks upon as the hæmorrhagic septicæmia group described by Hueppe, which includes rabbit septicæmia, Schutz's swine fever, Hueppe's "Wildseuche," Kitt's "Rinderseuche," and Oreste-Armanni's "Büffelseuche"; these organisms are non-motile; they do not grow very luxuriantly on gelatine, and they are not at all like the typhoid cultures (as are some of the

following); there is no growth on potatoes, and in milk they give rise to no special or characteristic features. When examined in the tissues they are found scattered in the blood-vessels and connective tissue spaces. In the next group, which contains Rietsch's Marseilles "Schweinseuche," Billing's swine plague, Billing's American "Rinderseuche," and Eberth's "Frettchen-seuche," the organisms exhibit a somewhat lively motion, the growths on gelatine are very like those of typhoid bacillus, there is a luxuriant growth on potatoes, and milk is curdled, acid formation taking place. These organisms are found as small capillary emboli, always in masses, and never scattered singly through the tissues. In the third group are described two species—Salmon's bacillus of hog cholera, and Selander's bacillus of swinepest—both of which are exceedingly motile. They exhibit a luxuriant and rapid growth on gelatine, but do not resemble the typhoid growth. On potatoes the former grows luxuriantly, the latter grows somewhat like typhoid bacillus. In milk they bring about direct solution (peptonisation) of the casein without any previous curdling. These organisms (like those in the previous group) occur in the blood vessels as small capillary emboli, and never singly in the tissue spaces.

Correspondence.

THE VILLAGE BLACKSMITH, ETC.

DEAR SIR,—I have been watching with more than ordinary interest the registration of shoeing smiths. My interest has been rewarded by various announcements in the local paper of Mr. So-and-so having qualified!

I have been asked by several blacksmiths, to use their own words, "How are we to go to work?" which of course I told them, and to my observation, a *great deal* of care is required, especially as there is no examination to pass, before a man should be allowed to style himself R.S.S.; but one gentleman I see does not stop at these letters, but on a gloriously got-up sign-board adds "Member of the Worshipful Company of Farriers." It struck me, is he right or wrong? I suppose had he used Shoeing Smiths in the place of "Farriers," he would not be erring greatly. So much for the future tread of the horse, and I hope he will be always able to go in comfort and be no longer the subject to the vagaries of a craze.

This membership is quite a new innovation on the blacksmith's sign-board, and I am sure that some of the members of our profession will blush to see themselves trying to be copied in a degree by the blacksmith's announcement.

Sign-boards are used by wheelwrights, carpenters, horse-dealers, etc., etc., and yet some of our distinguished members, who are crying so loudly for advancement *socially*, resort to such trade announcements. I say distinguished, because we in good faith sent them to the Council to represent our profession; and is this, Mr. Editor, the sort of men who should be the true representatives of the profession? I say no, and decidedly no, and were I able to use any power, I would never return a man whose ability is shown mostly, like the travelling showman, on the outside.

I have been in practice a great many years, but I have never resorted to such, as naturally I should expect to be classed with those in the trades, who very rightly resort to trade rules; therefore of what I write I carry out, and do not say, "Well, if I can't get a social position, I will pull myself up by those who can," and yet continue to cry loudly for reform! and carry on my little profitable trade as always has been done.

If members accept, and wish to be the show-members, let them take more pride, and be like other members belonging to any of the honourable professions.

"MUSA."

CONTAGIOUS PLEURO-PNEUMONIA ON THE KNARESMERE.

SIR,—It appears from the papers that there is an extensive outbreak of this disease near York, and that the Authorities have sent Captain McIlwain down to investigate. If this be true, is it not an unjust reflection on the profession? It would be equally pertinent to appoint an Artillery V.S. on a gunnery commission.

We have always been led to suppose that our status—professional and social—would, according to our deserts, receive recognition. Is this the form of it? It is probable that the peddling of the Agricultural Department in sending young and non-practical professional men on special investigation, with an arbitrary authority over competent and skilled members of the profession, has led to this.

The gallant officer is, no doubt, a man of ability, but where and how his opportunity of gaining anything but a very trifling experience of this malady occurred it is difficult to say, unless he formerly served with a regiment mounted on horned cattle. That the general acumen of the expeditionary staff of the Department is in no way superior to that of local professionals—if as able—is quite patent. Do they trace the disease to its origin? They get to a point plain to ordinary intelligence, lose the trail, and then forsooth put it on "Irish cattle."

W. G. R. A. COX.

June 13th.

REQUIREMENTS OF THE VETERINARY PROFESSION.

DEAR SIR,—I notice the following sentence in a former issue of the VETERINARY JOURNAL:—"*Veterinary surgeons, like poets, are born, not made.*" I have met many veterinarians—both in this country and in numerous places abroad, graduates from nearly all the European schools—and my experience teaches me that they are *not* usually poetic; but that there is very much truth—in fact, it is all truth—that veterinary surgeons are *born*, and not made.

No doubt it looks bad to see a youth wearing very tight trousers and large shoes. But I would much prefer to see a veterinary student dressed in well-made breeches and leggings, carrying a knotted cane, than that youth of whom—nowadays—we see so many, with cuffs, high hats, and black frock coats.

These latter named gentlemen talk very glibly of the first book of Cæsar and botany. They have often spent the best part of their time either as chemists' assistants or as clerks, and sometimes they are the sons of very well-to-do people, who imagine that the life of a V.S. is an easy, gentlemanly one, mostly consisting of riding and driving about. These youths frequently pass the exams. at R.V.C. with great credit, and if they are possessed of sufficient means after the diploma has been obtained, they embark upon practice on their own account. Numerous and ridiculous are the mistakes they make, not only bringing down sarcastic remarks upon themselves, but upon the schools and the profession generally. At cases of prolapsus uteri in the cow they are not first-class. At the examination of nervous and well-bred horses, as to soundness, they do not excel. During an ordinary conversation with an old-fashioned hunting country squire, or with a horse-dealer, they do not give these men the opinion that "*they are born veterinary surgeons*"—indeed, one would hardly be inclined to think that they were "made." Poetry would have been much more in their line, and probably to their taste. In merry, merry England, the most free country on this planet, we can say and write almost what we like, and I therefore at once say that my humble opinion is that our most successful practitioners are, *and always will be*, those men who are termed "horsey." Men whose *hearts* are really in the work. *Men who entered the*

profession because they love horses, and are by nature horsemen. They feel "at home" in the saddle, in the stable, and can intuitively see the different expressions in the face of—say a racehorse. My prescription to make useful veterinary practitioners is as follows:—

R.—A well-educated lad of sixteen, whose conversation is often about horses; he must like outdoor exercise, and be able to ride well, steady in his habits, *not* inclined to cigarettes and bitter ale. Let this young fellow spend two years with a good *country practitioner*, then to St. Pancras, or some other veterinary school. After the diploma has been obtained, then as an assistant in some city, and ultimately as a fully-fledged and *properly qualified man*, capable, I maintain, of getting a good living in old England, her colonies, or anywhere else.

Tact and experience of *men*, as well as knowledge of horses, are necessary, because it is often quite important that the client shall be "doctored" as well as the patient.

Professor Williams is reported, in your widely-read journal, to have said: ". . . but in the days when he went to college, those who entered as students *knew something about horses and other animals before they went. Now*, we have young men, from all grades of society, *some not fitted at all to be veterinary surgeons, and it is impossible to teach them the practical part of the profession.*"

"SULKY."

Communications, Books, Journals, etc., Received.

COMMUNICATIONS have been received from R. W. Burke, A.V.D., Amballa, India; J. A. McLaughlin, Providence, U.S.A.; "Musa"; H. T. Pease, A.V.D., Lahore; E. W. Hoare, Cork; W. A. Hancock, Newcastle-on-Tyne; F. Hobday, Hanley; W. S. Johnson, Glasgow; "Sulky"; H. G. Rogers, London; J. D. Allman, London; Professor Williams, Edinburgh; R. Rutherford, Edinburgh; G. Thatcher, London; Professor Walley, Edinburgh; T. Bowhill, Darlington; H. J. Dawes, West Bromwich; W. G. Cox, Newcastle-on-Tyne; W. Awde, Barnard Castle; A. W. Hill, London.

BOOKS AND PAMPHLETS: Veterinary Counter Practice; *G. Fleming*, Chauveau's Comparative Anatomy of the Domesticated Animals; Special Report on Diseases of the Horse; Annual Report of the Board of Live-Stock Commissioners for the State of Illinois; *Dr. E. Rolland*, Legons sur la Nature, etc., de la Fluxion Periodique du Cheval; *Drs. F. Boschetti* and *R. Bassi*, Fleming's Trattato di Ostetricia Veterinaria; *A. Koch*, Encyklopädie der Gesammten Thierheilkunde und Thierzucht; *I. Peron*, Précis de Legislation Commerciale dans les Ventes et Echanges d'Animaux Domestiques; Bulletin of the Johns Hopkins Hospital; Bulletin des Seances de la Société Nationale d'Agriculture.

JOURNALS, ETC.: *Deutsche Zeitschrift fur Thiermedicin und Vergleichende Pathologie; Bacteriological World; Thierarzt; Annales de Med. Veterinaire; Repertorium der Thierheilkunde; Clinica Veterinaria; Recueil de Méd. Veterinaire; Moderno Zooiatro; Echo Veterinaire; Journal de Med. Veterinaire et de Zootechnie; Revue Veterinaire; Oesterr. Zeitschrift fur Wissenschaftliche Veterinarkunde; Lancet; Mark Lane Express; Journal of Comparative Medicine and Veterinary Archives; American Veterinary Review; Live Stock Journal; Baily's Magazine; Eainburgh Medical Journal; British Medical Journal; Australasian Veterinary and Live Stock Journal; Archiv fur Wissenschaf. und Praktische Thierheilkunae.*

NEWSPAPERS: *Irish Times; Lahore Civil and Military Gazette; Bournemouth Visitors Directory; Darlington and Stockton Times; Dundee Advertiser; Morning Post.*